Economic Growth

Services and Subsidies to Business

A Study Team Report to the Task Force on Program Review

SERVICES AND SUBSIDIES TO BUSINESS

GIVING WITH BOTH HANDS

A Study Team Report
to the Task Force
on Program Review

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FOREWORD

The Task Force on Program Review was created in September 1984 with two major objectives - better service to the public and improved management of government programs. Recognizing the desirability of involving the private sector in the work of program review, assistance from national labour, business and professional organizations was sought. The response was immediate and generous. Each of these national organizations selected one of their members to serve in an advisory capacity. These public spirited citizens served without remuneration. Thus was formed the Private Sector Advisory Committee which has been responsible for reviewing and examining all of the work of program review.

The specific program reviews have been carried out by mixed study teams composed of a balance of private sector and public sector specialists, including representatives from provincial and municipal governments. Each study team was responsible for the review of a "family" of programs and it is the reports of these study teams that are published in this series. These study team reports represent consensus, including that of the Private Sector Advisory Committee, but not necessarily unanimity among study team members, or members of the Private Sector Advisory Committee, in all respects.

The review is unique in Canadian history. Never before has there been such broad representation from outside government in such a wide-ranging examination of government programs. The release of the work of the mixed study teams is a public acknowledgement of their extraordinarily valuable contribution to this difficult task.

Study teams reviewed existing evaluations and other available analyses and consulted with many hundreds of people and organizations. The teams split into smaller groups and consulted with interested persons in the private sector. There were also discussions with program recipients, provincial and municipal governments at all levels, from officials to cabinet ministers. Twenty provincial officials including three deputy ministers were members of various study teams.

The observations and options presented in these reports were made by the study teams. Some are subjective. That was necessary and appropriate considering that the review phase of the process was designed to be completed in a little more than a year. Each study team was given three months to carry out its work and to report. The urgent need for better and more responsive government required a fresh analysis of broad scope within a reasonable time frame.

There were several distinct stages in the review process. Terms of reference were drawn up for each study team. Study team leaders and members were appointed with assistance from the Private Sector Advisory Committee and the two Task Force Advisors: Mr. Darcy McKeough and Dr. Peter Meyboom. Mr. McKeough, a business leader and former Ontario cabinet minister, provided private sector liaison while Dr. Meyboom, a senior Treasury Board official, was responsible for liaison with the public sector. The private sector members of the study teams served without remuneration save for a nominal per diem where labour representatives were involved.

After completing their work, the study teams discussed their reports with the Private Sector Advisory Committee. Subsequently, their findings were submitted to the Task Force led by the Deputy Prime Minister, the Honourable Erik Nielsen. The other members are the Honourable Michael Wilson, Minister of Finance, the Honourable John Crosbie, Minister of Justice, and the President of the Treasury Board, the Honourable Robert de Cotret.

The study team reports represent the first orderly step toward cabinet discussion. These reports outline options as seen by the respective study teams and present them in the form of recommendations to the Task Force for consideration. The reports of the study teams do not represent government policy nor are they decisions of the government. The reports provide the basis for discussion of the wide array of programs which exist throughout government. They provide government with a valuable tool in the decision-making process.

Taken together, these volumes illustrate the magnitude and character of the current array of government programs and present options either to change the nature of these programs or to improve their management. Some decisions were announced with the May budget speech, and some subsequently. As the Minister of Finance noted in the May

budget speech, the time horizon for implementation of some measures is the end of the decade. Cabinet will judge the pace and extent of such change.

These study team reports are being released in the hope that they will help Canadians understand better the complexity of the issues involved and some of the optional solutions. They are also released with sincere acknowledgement to all of those who have given so generously of their time and talent to make this review possible.

TERMS OF REFERENCE

The programs, or groups of programs, listed in Annex A include 57 subsidies or incentives, and 155 programs providing services to business. The 57 subsidy programs cost a total of $4.5 billion in grants and contributions, and $7.7 billion in federal revenues, and directly involve 11,440 person-years. The 155 service programs cost $713 million in grants and contributions, $1,966 million in salaries, and $1,507 million in operations and maintenance costs; they directly involve 56,860 person-years of federal staff.

A number of programs that have been included in the inventory have probably been too broadly defined by departments and are not an exclusive service or subsidy to business, but rather of broader application. The study team will therefore examine the list closely with a view to restricting its examination to those programs that are of direct relevance as a service or subsidy to business. The team will also consult with those who are engaged in policy reviews requested by the Minister of Regional Industrial Expansion. (see para. 5)

Based on an appropriately modified list of business programs, the Ministerial Task Force on Program Review seeks the advice and conclusions regarding a profile of government programs in each department which is simpler, more understandable and more accessible to their clientele, and where decision making is decentralized as far as possible to those in direct contact with client groups. Included in this advice could be observations regarding:

- Programs that might be eliminated.
- Programs that could be reduced in scope.
- Groups of programs that could be consolidated.
- Programs whose basic objective is sound but whose form should be changed.
- A summary overview of the legislation that would be required to implement any of these program changes.
- The resource implications of any recommended program changes, including increased costs or savings and the number and location of either increases or decreases in staff.

By means of background information to its conclusions the Study Team is asked to obtain answers to three sets of questions or concerns regarding beneficiaries; efficiency and overlap; and gaps and omissions.

Beneficiaries - The main beneficiaries of federal subsidies and services to business; and more specifically -

- The overall distribution of groups of firms benefitting from federal direct spending programs and tax expenditures by size of firm (or corporation), industrial sector, and geographic location.
- The tax status and (book) profit/loss position of groups of firms receiving government grant and tax benefits.
- The principal direct (and if different) indirect beneficiaries of government programs for R&D and innovation, including intramural research, subsidized external research, subsidies, and tax expenditures.
- Beneficiaries of more than one federal program.
- Beneficiaries of federal programs who are also beneficiaries of provincial programs.

Efficiency and Overlap

- Programs which are particularly troublesome to beneficiaries in terms of red tape, paper work, and delays.
- Illustrative cases where a business is a beneficiary of several subsidy or service programs, including tax expenditures and programs of provincial governments, and
  - the programs are complementary,
  - the programs seem to work at cross-purposes, and/or
  - the programs involve substantial duplication or overlap - for example IRDP and DIPP on one side and tax incentives for R&D on the other.

- Cases illustrating broader concerns where a program directed to business seems to work at cross-purposes to initiatives directed to other major government objectives such as job creation.

- Cases where several overlapping programs might be consolidated into one.

Gaps and Omissions

- Direct spending or tax expenditure programs which should be taken into account into this review of subsidies and services to business but are not in the list of programs in the Annex.

LINKAGE WITH POLICY REVIEWS

At the moment several consultation papers are being prepared with respect to certain aspects of Subsidies and Services to Business. These are: Small Business, R & D and Innovation, and Regional Development. Once published, these papers will serve to stimulate discussion and consultation between the private sector and responsible Ministers on possible future policy options. Although the study team will undoubtedly want to examine and take note of these papers as they become available, the team's central task will be to advise the Ministerial Task Force along the lines set out in paragraphs 3 and 4 above.

COMPOSITION OF STUDY TEAMS

The study team shall be led by a senior government official at the EX 4-5 level, who will be appointed in consultation with the Department(s) most closely affected by this program assessment. The team Director will report to both the Public Sector Advisor and the Private Sector Liaison Advisor serving the Chairman of the Task Force. The Director will be supported by 4-5 seconded government officers and a matching number of private sector representatives nominated through the Private Sector Advisory Committee. The team, or its Director, shall meet with the Public Sector and Private Sector Liaison Advisors at their request.

WORK PROGRAM

In view of the multiplicity of programs that fall within the general category of "Services and Subsidies to Business", it may be desirable to assign specific tasks to sub-teams dealing with specific subjects, departments or agencies. To this end, the Study Team will submit for consideration by the Ministerial Task Force a detailed workplan showing precisely which programs are recommended for review at this time and what sub-teams ought to be organized for that purpose.

The study team shall have access to any evaluations or evaluative tools departments have with respect to programs covered by this review.

REPORTING SCHEDULE

The study team is requested to report its initial findings to the Ministerial Task Force on February 1, 1985. In addition, the Task Force will receive brief progress reports on the work of this and other study teams at all regular meetings.

COMMUNICATION WITH DEPARTMENTS

Ministers of those Departments directly affected by this review, will be advised which programs under their jurisdiction will be included.

57 SUBSIDIES

CIRB	100	CANADIAN INDUSTRIAL RENEWAL BOARD
DOC	7	BOOK PUBLISHING DEVELOPMENT PROGRAM
DOC	101	POSTAL RATE SUBSIDY FOR PUBLICATIONS MAIL
DOC	109	CITE INTERNATIONALE DU CINÉMA ET DE LA TELEVISION
DOC	110	CANADA-MAN. SUB AGREEMENT ON COMMUN AND CULTURE
DOC	112	TELIDON EXPLOITATION PROGRAM
EAC	8	CATALYTIC SEED FUND
EAC	11	PROGRAM FOR EXPORT MARKET DEVELOPMENT
EAC	100	INTERNATIONAL TRADE DEVELOPMENT
EC	206	CANADA/NEW BRUNSWICK AGREEMENT (ERDA)
EIC	26	CAREER ACCESS
EIC	32	TRAINING SUBSIDIES (CIT, CTST)
EIC	42	UI - WORKSHARING
EIC	132	GENERAL INDUSTRIAL TRAINING
INAC	81	CANADA/NWT ERDA AND SUB-AGREEMENTS
INAC	117	CAN-NWT PWR RATE RELIEF PRG FOR SML NON-GOV. COM. ENT. AGREE.
INAC	118	CAN.-YUKON TERR. PWR RATE RELIEF PRG FOR SML NON-GOV. COM. ENT
INAC	120	CANADA/NWT SUB AGRMNT ON NATURAL RESOURCE DEV
INAC	121	CANADA-YUKON ERDA
INAC	300	BUSINESS ASSISTANCE AND ADVISORY SERVICES
ITC/REE	1	INDUSTRIAL AND REGIONAL DEVELOPMENT PROGRAM
ITC/REE	7	DEFENCE INDUSTRY PRODUCTIVITY PROGRAM
ITC/REE	9	MACHINERY/TARIFF PRODUCTION, DUTY REMISSION
ITC/REE	52	SPECIAL AGRICULTURAL AND RURAL DEV AGRMNT
ITC/REE	101	ECONOMIC AND REGIONAL DEVELOPMENT AGREEMENTS
ITC/REE	103	INDUSTRY AND LABOUR ADJUSTMENT PROGRAM
ITC/REE	104	WESTERN TRANSPORTATION INDUS DEVEL PROGRAM
ITC/REE	105	SHIPBUILDING INDUSTRY ASSISTANCE PROGRAM
ITC/REE	106	NATIVE ECONOMIC DEVELOPMENT PROGRAM
NRC	101	INDUSTRIAL DEVELOPMENT PROGRAMS
PRTC	1	PORTS CANADA
PWC	119	MARINE TRANSPORTATION & RELATED ENGINEERING
SS	30	NORTHERN BROADCAST ACCESS PROGRAM
SSC	3	UNSOLICITED PROPOSALS
SSC	4	SOURCE DEVELOPMENT FUND
TC	255	ERDA SUBSID AGRMNT ON TRANSPOR, DEV, N.B. & P.E.I.
TEC	1	TAX EXPEND, CORP - INVESTMENT TAX CREDIT, R & D
TEC	2	TAX EXPEND, CORP -INVESTMENT TAX CREDIT, UNINC BUS
TEC	3	TAX EXPEND, CORP - INVESTMENT TAX CREDIT, GENERAL
TEC	4	TAX EXPEND, CORP - TOTAL ACCELERATED DEPRECIATION
TEC	6	TAX EXPEND, CORP - RESOURCE SOURCE (EXCL. ENERGY)
TEC	7	TAX EXP, CORP -LOW RATE FOR MANU AND PROC PROFITS
TEC	8	TAX EXPEND, CORP - R&D, FAST AND EXTRA WRITE-OFFS
TEC	9	TAX EXPEND, CORP - SMALL BUSINESS DEDUCTION
TEC	10	TAX EXPEND, CORP - SMALL BUSINESS BONDS
TES	1	TAX EXPEND, SALES - TRANSPORATION EQUIPMENT
TES	3	TAX EXPEND, SALES - SMALL MANUFACTURERS
TES	4	TAX EXPEND, SALES - NON-MANUF COMM USES OF ELECT
TES	5	TAX EXPEND, SALES - DRUGS
TES	10	TAX EXPEND, SALES - CLOTHING & FOOTWEAR
TES	11	TAX EXPEND, SALES - BUILDING MATERIALS
TES	12	TAX EXPEND, SALES - CONSTRUCTION EQUIPMENT
TES	13	TAX EXPEND, SALES - GOODS COMPETING WITH ON-SITE CONSTR
TES	15	TAX EXPEND, SALES - BOOKS
TES	16	TAX EXPEND, SALES - NEWSPAPERS AND MAGAZINES
TES	17	TAX EXPEND, SALES - BICYCLES
TES	18	TAX EXPEND, SALES - CRAFTSMEN, SCULPTORS AND ARTISTS

164 SERVICES (AND OTHER)

ADT	1	ANTI-DUMPING
CCA	9	CORPORATIONS
CCA	10	BANKRUPTCY
CCA	12	COPYRIGHT
CCA	13	PATENTS
CCA	14	TRADEMARKS
CCA	31	LEGAL METROLOGY - ELECTRICITY & GAS
CCA	32	LEGAL METROLOGY - WEIGHTS & MEASURES
CCA	101	RESTRAINTS TO COMPETITION
CCC	1	SALES
CCC	2	CAPITAL PROJECTS
CCOHS	1	CANADIAN CENTRE FOR OCCUPATIONAL HEALTH AND SAFETY
CHPC	1	CANADA HARBOUR PLACE CORPORATION
CLRB	1	CANADA LABOUR RELATIONS BOARD
CPDL	1	CANADIAN PATENTS AND DEVELOPMENT LIMITED
CRTC	1	CANADIAN RADIO-TELECOMMUNICATIONS COMMISSION
CTC	12	WATER TRANSPORT REGULATION
CTC	13	TRAFFIC AND TARIFF ANALYSIS
CTC	14	ATLANTIC FREIGHT ASSISTANCE
CTC	15	TRANSPORT RESEARCH
CTC	20	AIR TRANSPORT REGULATION
CTC	30	MOTOR VEHICLE TRANSPORT REGULATION
CTC	40	RAILWAY ECONOMIC ANALYSIS & QUALITY OF SERVICE
CTC	45	RAILWAY SAFETY
CTC	50	RAIL BRANCH LINE SUBSIDIES
CTC	55	RAIL PASSENGER SERVICE SUBSIDIES
DCC	1	DEFENCE CONSTRUCTION CANADA
DOC	3	CANADIAN FILM AND VIDEO - OK FOR TAX BREAK
DOC	10	CANADIAN PARTICIPATION IN THE INTERNATIONAL TELECO
DOC	24	WORLD ADMINISTRATIVE RADIO CONFERENCE REPRESENTATI
DOC	37	TERMINAL ATTACHMENT PROGRAM
DOC	39	DEV OF SPACE SUBSYSTEMS & COMPONENTS BY INDUSTRY
DOC	40	DAVID FLORIDA LABORATORY
DOC	45	OFFICE COMMUNICATIONS SYSTEMS PROGRAM
DOC	53	MOBILE SATELLITE PROGRAM (MSAT)
DOC	111	INT'L COLLABORATION ASSISTANCE FUND RESEARCH ON
DOC	114	SUBSYSTEM DEV & ADV R & D PROG NEW INFO TECH.
DOC	115	INTERNATIONAL BID SUPPORT
DOC	***	SPECTRUM MANAGEMENT (VARIOUS ASPECTS)
EAC	6	DOMESTIC INFORMATION SERVICES
EAC	9	EXPORT AND IMPORT CONTROL PROGRAM
EAC	11	PROGRAM FOR EXPORT MARKET DEVELOPMENT
EAC	12	PROMOTIONAL PROJECTS PROGRAM
EAC	101	DEFENCE PROGRAMS
EAC	102	TRADE POLICY CONSULTATIONS
EAC	103	TRADE PUBLICITY ABROAD
EC	18	COMMERCIAL CHEMICALS
EC	20	TECHNICAL SERVICES
EC	23	WASTE MANAGEMENT
EDC	1	EXPORT DEVELOPMENT CORPORATION
EIC	1	NATIONAL JOB BANK
EIC	27	AFFIRMATIVE ACTION
EIC	28	FOREIGN WORKER RECRUITMENT
EIC	31	EMPLOYMENT SERVICES
EIC	33	MANPOWER CONSULTATIVE SERVICE
EIC	35	FEDERAL CONTRACTS PROGRAM
EIC	37	LOCAL EMPLOYMENT ASSISTANCE AND DEVELOPMENT (LEAD)
EMR	97	REMOTE SENSING
EMR	101	R&D SERVICES - CANMET
EMR	214	BUILDING ENERGY TECHNOLOGY TRANSFER PROGRAM (BETT)
EMR	302	MINERAL INDUSTRY DEVELOPMENT
F&O	101	CHARTS
FBDB	3	FINANCIAL PLANNING PROGRAM
FBDB	4	CASE
FBDB	5	TRAINING
FBDB	6	INFORMATION SERVICES

HWC	17	CIVIL AVIATION MEDICINE
HWC	101	DRUG SAFETY, QUALITY AND EFFICACY
INAC	79	YUKON MINING
INAC	80	NORTHWEST TERRITORIES MINING
INAC	90	INDIAN ECONOMIC DEVELOPMENT FUND
INAC	107	CANADA NORTHWEST TERRITORIES ECONOMIC DEVELOPMENT
INAC	108	MACKENZIE RIVER BASIN STUDY
INAC	109	NWT FLOOD DAMAGE REDUCTION AND RISK MAPPING
INAC	110	YUKON RIVER BASIN STUDY AGREEMENT
INAC	122	CANADA-NONINSTITUT MINES LTD AGREEMENT
INAC	201	YUKON AND NWT LAND FOREST AND WATER MGMNT
INAC	227	NORTHERN ROADS AND INFRASTRUCTURE
ITC/REE	11	DESIGN COUNCIL (NIL FILE)
ITC/REE	12	DESIGN CANADA (NIL FILE)
ITC/REE	14	BOSS (NIL FILE)
ITC/REE	18	BUSINESS/INTERFIRM COMPARISONS (NIL FILE)
ITC/REE	24	PEMD (NIL FILE)
ITC/REE	17	SMALL BUSINESS LOANS ACT
ITC/REE	100	TOURISM
ITC/REE	102	THINK CANADIAN
LC	3	LEGISLATIVE ANALYSIS & RESEARCH -
LC	4	CONDITIONS OF WORK
LC	14	INDUSTRIAL RELATIONS INFORMATION SERVICES
LC	17	LABOUR LIBRARY
LC	20	FEDERAL MEDIATION AND CONCILIATION SERVICES
LC	22	COLLECTIVE BARGAINING
LC	24	SURVEYS DIVISION
LC	26	INTERNATIONAL LABOUR PROGRAM
NRC	102	RESEARCH - NON ENERGY
NRC	103	NATIONAL COMPETENCE
NRC	104	RESEARCH - BUILDING CONSTRUCTION
NRC	106	LAB SUPPORT FOR INDUST. INNOV. AND DEV.
NRC	107	NATIONAL FACILITIES MANAGED BY NRC
NRC	108	MAJOR FACILITIES MANAGED EXTERNALLY
NRC	109	RESEARCH AND SCIENCES REL TO PHYSICAL STANDARDS
NRC	110	SCIENTIFIC AND TECHNICAL INFORMATION
NSERC	1	NAT. SCIENCES AND ENGINEERING RESEARCH COUNCIL
NTCL	1	KEEWATIN RESUPPLY OPERATION
PWC	3	CAN. LNDS COM. SUB. - VEUX PRT DE QUE./VIEUX PRT DE MONT., MIR.
PWC	4	HARBOURFRONT CORPORATION
PWC	110	SERVICES PROGRAM - DREDGING AND FLEET SERVICES
PWC	120	MARINE TRANSPORTATION & RELATED ENGINEERING WORK/P
PWC	121	LAND TRANSPORTATION PROGRAM - HIGHWAY SYSTEMS
PWC	122	LAND TRANSPORTATION PROGRAM/BRIDGES & OTHER
RCCE	**	REVENUE CANADA CUSTOMS & EXCISE - VARIOUS SERVICES
RCT	**	REVENUE CANADA TAXATION - VARIOUS SERVICES
RTPC	1	RESTRICTIVE TRADE PRACTICES COMMISSION
SC	**	STATISTICS CANADA - VARIOUS SERVICES
SCC	1	THE SCIENCE COUNCIL OF CANADA
SLSA	6	THE JACQUES CARTIER AND CHAMPLAIN BRIDGES INC
SSC	9	CANADIAN GENERAL STANDARDS BOARD
SSC	10	DISPOSAL OPERATIONS
STCC	11	STANDARDS COUNCIL OF CANADA
TB	5	ACCESS TO INFORMATION & PRIVACY
TB	6	OFFICES OF REGULATORY REFORM
TC	4	AIR CARRIER OPERATING CERTIFICATES
TC	8	AVIATION SAFETY PROGRAMS
TC	14	AVIATION ACTIVITY FORECASTS
TC	15	CIVIL AVIATION PERSONNEL LICENSING
TC	16	AVIATION PERSONNEL LIC/GUIDES - STUDY & REF GUIDES
TC	17	FLIGHT INSTRUCTOR COURSES CIVIL FLIGHT INST. REFRESHER COURSES
TC	18	FLIGHT CREW & AIRCRAFT MAINT. LICENSING EXAMS

TC	20	AIRCRAFT JOURNEY LOG
TC	22	AIRCRAFT FLIGHT PERMITS
TC	23	CIVIL AIRCRAFT REGISTER
TC	24	AERONAUTICAL INFORMATION SERVICE
TC	26	AVIATION ENFORCEMENT PROGRAM
TC	27	AIRWORTHINESS/AIRCRAFT
TC	29	FLIGHT TEST STANDARDS AND GUIDES-FIXED & ROTARY WING LICENSES
TC	34	CRASH, FIREFIGHTING AND RESCUE SERVICES (CFR)
TC	35	AIRPORT MARKETING PROGRAMS
TC	37	AIRPORT SECURITY
TC	39	CANARCTIC
TC	47	MARINE AIDS TO NAVIGATION
TC	91	URBAN TRANSPORTATION ASSISTANCE PROGRAM
TC	93	TRANSPORT OF DANGEROUS GOODS/REGULATORY ASPECTS
TC	94	TRANSPORTATION OF DANGEROUS GOODS/INSPECTION
TC	95	CANUTEC
TC	99	FINANCIAL ASSISTANCE TO AIRPORTS
TC	200	CN MARINE INC.
TC	205	SUBSIDIES TO PROV'S FOR FERRY SERVICES
TC	235	COMMUTER RAIL SERVICES
TC	240	VEHICLE SAFETY & ENERGY OPERATIONS
TC	260	VICTORIA JUBILEE BRIDGE
TC	300	WATERWAYS DEVELOPMENT
TC	310	AIR CUSHION VEHICLE REGULATORY
TC	330	NAVIGABLE WATERS PROTECTION
TC	405	AIRCRAFT REGISTRATION
TC	410	AIRPORT FACILITIES AND AIRPORT SERVICES PROGRAM
TC	420	AIR TRAFFIC SERVICES
TC	425	AIR NAVIGATION AIDS (TECHNICAL SERVICES)
TC	430	AVIATION SERVICES
TC	500	INSPECTOR GENERAL - TRANSPORTATION SAFETY
TC	515	TRANSPORTATION RESEARCH AND DEVELOPMENT (TR&D)
TC	600	CANADIAN AVIATION SAFETY BOARD
TC	610	FOUR PILOTAGE AUTHORITIES
TCC	1	TAX COURT
TRFB	101	TARIFF BOARD - ANTI DUMPING APPEALS

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OVERVIEW

"GIVING WITH BOTH HANDS":

INTRODUCTION

This is the report of the study team on Services and Subsidies to Business. Its building blocks are 140 program reviews covering some 218 distinct federal or federal-provincial programs costing in aggregate $16.4 billion in 1984-85 and requiring the services of more than 68,000 federal public servants.

The program reviews are grouped by the nature of the assistance they offer businesses, and each group is preceded by a brief essay noting the main direction of preferred change and the policy and other considerations involved.

This introductory overview summarizes the major changes proposed and the common themes that underly them. For convenience, the overview that was presented in our interim report is reprinted in the following chapter. Its comments on the study team's approach and its insistence that program evaluation and accounting systems need improvement remain valid.

SUMMARY OF MAJOR PROPOSALS

Most of the following would require legislation after detailed planning and have the potential for important cost reductions. They are grouped under the underlying theme that led the study team to its conclusion.

"Giving with both hands" refers to an overly rich, overlapping (intra-federal as well as federal-provincial) industrial incentive system that according to the study team needs rationalizing so that the total of Crown assistance for any private investment from tax expenditures, ERDAs and grants does not exceed 50 per cent of a project's cost or 75 per cent of an R&D project except with the explicit approval of the responsible Minister.

Corporate tax expenditures: a serious effort is needed to understand the costs, incidence, and effectiveness of each of these measures, which are generally uncoordinated with other assistance programs. We propose new rules to govern the joint use of taxes and grants.

ERDA sub-agreements: a sustained exercise of political will is needed to allow the ERDA system to approach its potential for coordinated planning and delivery of services from the two senior levels of government. The discipline of budgetary planning is accepted and practised in the private sector with beneficial results. In the words of one reviewer, the gap between design and actuality is like using a Mercedes to haul garbage.

Industrial and Regional Development Program/ Defence Industry Productivity Program: Canada should withdraw from all small cases by devolution to the provinces, move most innovation cases to NRC, and concentrate DRIE funding on major negotiated projects, including defence-related projects, of national importance. Top-up programs for rich regions (Western Transportation Industrial Development Program) and bail-outs to permanently uncompetitive industries (SIAP, CIRB) should be ended.

Space Program: Investment decisions regarding increasingly expensive prestige projects should follow a disinterested, possibly public, review of costs and benefits. The internal management system needs strengthening.

Improved quality of service, especially where economies can be realized at the same time, is an objective underlying a number of proposals. Major ones include:

Federal Business Development Bank: either wind it up by privatizing its lending and investment functions, or else consolidate it and all other federal financial intermediaries, possibly with ancillary advisory services to businesses, into a new institution.

Canada Post: should be regulated by CRTC or other external body; the first step is getting its accounting system in order.

Patent Office: Canada should accede to the Patent Cooperation Treaty and cease all or most examinations.

Terminate obsolete programs: Some objectives are obsolete, others have been perverted by collision with reality. Most such cases are minor, but not:

Federal Sales Tax Exemptions: which do not serve or serve only at great cost objectives whose continued relevance is suspect. Simplicity and repair of the fisc would lead to much greater uniformity, coupled where necessary with targetted offsets.

Framework legislation: Canada's basic laws of the marketplace are woefully antique, yet government's most fundamental economic responsibility is to see to the adequacy of our shared legal as well as physical infrastructure.

TAXES AND GRANTS

The basic arguments about tax incentives versus grants as a means of accomplishing public purposes are well known: the automaticity and "privatized compliance" of the former contrasts with the potential for close focus and lesser expense of the latter. What is less clear is the bifurcation of the public service into a small group which understands the tax system and its effect on private capital allocation, and a much larger group that operates as if there were no corporate tax system. Among line departments delivering direct expenditure programs, only EMR and certain quarters of DRIE can be described as at all tax-sophisticated. The result is an absurdity like the necessity, at DRIE, of an ad hoc 90 per cent stacking rule, whose meaning is that the investor must have at least ten per cent of a project's all-in cost from private sources. The absurdity is not the rule, though the number should be smaller, but its very necessity.

As a case in point, consider a smelter forced to install new technology for pollution abatement. It would get an investment tax credit of 7 per cent, more (up to 20 per cent) if it were located in certain poorer parts of the country. It would get yet more (20 per cent instead of 7 and 30 per cent instead of 20) on any part of its own technology expenditures that qualify as R&D. If currently

untaxable, 20 per cent of the eligible investment tax credit is recoverable in cash. The rest can be carried back three years or forward seven as an offset against income taxes otherwise payable. The company will also benefit from the present value of the tax deferral inherent in accelerated depreciation on the part of the investment not paid for through the investment tax credit. Already, depending on individual circumstances, the Crown federal may be paying anything from zero to more than thirty-five per cent of the cost of the project. If the company were a small business in a very poor region, the level of tax support could exceed fifty per cent. This is the point at which the spending and lending departments begin to get involved. Finally, the provincial governments are likely to have grant programs of their own.

There are several solutions. The simplest is to abolish either tax incentives or grants -- a solution which, despite its undeniable appeal, means forswearing the more efficient tool in particular cases. Another is to require officials managing direct assistance programs to be knowledgeable about tax incentives and provincial programs and the joint impact of taxes and grants on corporate decision-makers. Under any circumstances this seems a necessary reform. But the need for a vast infusion of new expertise can be kept to a minimum by requiring that both the investment tax credit, if any, as well as the cost base of the assets acquired, be reduced by the value of the direct assistance provided. This separation of impacts is discussed more fully later in this report. In general, it would mean that far fewer direct expenditures would be needed, and that they would be concentrated on attracting industries to Canada and other objectives where non-taxability was an issue.

Thrusting this greater burden on the general provisions of the tax system may well occasion some adjustment of rates. It should also occasion a great deal more evaluative research on tax measures. Information about the effectiveness and efficiency of the wide variety of corporate tax incentives is generally unavailable even for measures considered singly. Together, there are reasons to suspect overlap, duplication, and diminishing marginal returns. In this and one other important respect, tax incentives are like grants. Both take capital from one use and direct it at another, and both tend to claim only the benefits from the latter while ignoring the often superior economic result that would have occurred in the absence of

government intervention. Finally, the official fiction that no person years are involved in administering the tax system ignores the one civil servant in eight who works for Revenue Canada, and his even more numerous colleagues in the private sector.

One Deputy Minister we interviewed allowed that past governments had "turned Canada into a nation of program junkies." The addiction is not confined to spending programs.

SERVICE, OBSOLESCENCE, AND INCENTIVES

Federal programming is full of opportunities to make access by the intended beneficiary easier, cheaper, and more human. Too much attention in program design has concentrated on accountability and on allowing every department its (competing) place in the sun, and not enough on service quality. Program consolidation, improved information to intended clients, and regional sensitivity in delivery are common themes in the reviews that follow.

There are likewise many federal programs which probably would not be invented today -- their objectives not necessitating a separate program instrument -- but whose very existence has called into being a clientele whose protests muffle any murmurs for change.

The problem is that at political and therefore senior bureaucratic levels there do not seem to be rewards for doing more with less. In fact, middle managers now are all too aware that their pay and classification levels depend in part on the number of people they supervise and the dollars they spend. Such incentives have predictable results. The study team is convinced that the management levels of the public service would respond with alacrity to any government which offered reward and recognition for productivity gain.

CONCLUDING COMMENT

All the members of this mixed study team would like to express gratitude to the Task Force for the opportunity to contribute in this unique way to program reform. We think the mixed public-private approach has a lot to recommend it and should be used more often. We would be remiss, however, if we did not note that the time and expertise we could devote to the awesomely complicated panoply of programs that follows was so brief as to call into question the adequacy

of these reports as the sole basis for sweeping change. Allowing for the 1984 Christmas holiday, 16 non-expert people reviewed 220 programs in 40 working days, an average of less than three person days per program.

OVERVIEW

INTERIM REPORT

OBJECTIVE

This is the interim report of the study team on Services and Subsidies to Business. The formal terms of reference of this study team were supplemented by instructions from the Task Force to give priority to measures affecting small business and more generally to matters related to the taxation of business by the federal government. Accordingly this report presents the initial assessments of the study team on some 36 programs.

INTRODUCTION

The approach of the study team has been "bottom-up": starting with questions, on a program-by-program basis, about efficiency, duplication (both federal and provincial), quality of service, and side effects. The continuing relevance of program objectives in light of changed circumstances has also been a concern. The team has maintained close contact with officials preparing policy consultation documents, and has tried to respect the fuzzy line between program and policy analysis. It is difficult to separate them completely. In fact, making sense of the hundreds of micro-decisions needed to improve the structure of program delivery inevitably engages questions of policy. The team has taken note of the principles espoused by the Government in the Throne Speech and especially in the November 8, 1984 Economic Statement and subsequent consultation documents. Where no authoritative policy statement was available, we have tried, in setting out options, to make clear exactly what dimension of policy choice would lend weight to one or another option at the program level.

In this way, interpreting as best we can the Government's policy direction, the program reviews tend to conclude with one or two options to present delivery. In some cases the conclusion is that the program is working well and the only consideration is whether the resources rheostat should be adjusted up or down somewhat. More frequently, the team suggests an alternative which may improve the program design.

A COMMENT ON INFORMATION

Departmental officials have been uniformly helpful, open and direct in their answers to questions, their provision of sensitive internal materials, and their suggestions for reform. Conversely, two formal sources of information - program evaluations and program cost data - were less useful than originally anticipated at the work planning stage.

First, program evaluations vary greatly in quality. Some are solid guides to understanding and reform. Some are little more than self-serving advertisements for more resources for pet departmental programs. Even where methodologically sound at the micro level, however, they seldom (a) examine alternative ways of accomplishing the same ends or (b) present the benefits of a program net of the good that would have accrued had the same resources been allowed to percolate around in the private economy. The theology that has made evaluation a servant of the deputy minister rather than the system as a whole, an internal art not reviewed by outsiders, and an adjunct of the audit rather than policy development function in most departments, needs re-examination.

Second, reliable data on the costs of programs in hard to come by. A surprisingly heavy imposition on the time of Treasury Board Secretariat's Program Branch was occasioned by our request for multi-year program costs. This is because the "planning elements" of the multi-year operational planning process decompose imperfectly into what ministers and citizens recognize as the outputs of government: identifiable programs. A further difficulty arose when the study team wanted to know commitments, revenues, or contingent liabilities by program. That information is not centrally available and must be collected from departments, not all of whom share definitions or have systems capable of answering on a timely basis. Finally, if credible dollar figures are hard to come by, the person-year allocations are even more problematic. The rules for allocating person-years to program outputs appear to vary widely among departments. Given the degree of Treasury Board's micro-management of human resources, this was particularly surprising to members of the study team.

These comments about the reliability of resource information must condition heavily any claims of potential savings arising from the options presented. In many cases, especially on federal employment impact, more reliable information may be uncovered with follow-up study involving the implementing agency.

SMALL BUSINESS

General

With respect to the Small Business Loans Act (SBLA), as with other programs on which Cabinet has recently spoken, the study team has not second-guessed policy but concentrated on its implications for other parts of the small business financing problem. On policy, the team is in general agreement with expressed government preferences for non-interventionist (i.e., tax) assistance, for setting a better business climate through removal of impediments to growth, and for concentrating federal assistance on the classic public goods of better information and service to the small business community.

The difficulty with proceeding much farther down the tax assistance line is that Canada's system appears to be reasonably fair, and by present international standards, competitive. On services, there is a fundamental question about whether provincial or local authorities are not better placed to provide it, or at least about what subset of management information, training and commercial intelligence is most economically provided at a national scale. The study team took counsel from those who have been consulting small business and from a few entrepreneurs. What does that community need, and what of that can be provided by governments? Our limited soundings indicated that small businessmen want the following:

a. freedom from imposition on the scarcest of all resources, entrepreneurial time;
b. access to capital:
   first, availability of financing on a term basis;
   second, equity, though with minimum dilution of control;
c. a tax regime which offers the opportunity to accumulate capital; and
d. a supportive, easily accessible infrastructure of management services and commercial intelligence.

The federal government's attention over the years seems to have been focussed on services, the tax regime, and on the provision of debt financing. The highest priority, imposing on time, has been only sporadically addressed, as for example through tax simplification, the temporary appointment of a Controller of the Paperburden, and so on. To the extent that the smallest of businessmen are made sales or payroll tax collectors, they tend to feel doubly burdened as government relieves them of both time and money. But the federal government is not the sole offender. Provincial and especially municipal governments impose the bulk of the red tape, lengthy building and land use approval processes, and the like. This suggests that the federal government might exercise some useful persuasion through the multilateral meetings on regional economic development or through the annual bilateral reviews of the Economic and Regional Development Agreements.

Equity capital is widely acknowledged to be scarce and expensive for small business. Both the federal and provincial governments have concentrated on intermediation in debt markets. Lately the provinces have led in developing mechanisms for encouraging equity investment. Insofar as the scarcity of equity has an answer in public policy, it may be in a judicious loosening of the rules on institutional investment and by encouraging more competition among the "Four Pillars". There is also the problem of a personal income tax system which has encouraged ordinary investors to plunge into mud, MURBs and movies through generous public assumptions of risk while denying the same preferences to the start-up phases of new business corporations.

On the debt side, the team was struck by one comparison with U.S. practice which works to the disadvantage of Canadian small businessmen, the penchant of Canadian chartered banks to make all loans into demand loans. Not only does this add, in the eye of the small business customer, an unnecessary degree of capriciousness to what elsewhere is a contract that can be ended by one party only by default of the other, it often means that the local banker exerts a degree of supervision and control over the business that is overly onerous. One answer is more competition: encouraging through regulatory change the trust companies, credit unions, and the Schedule B banks to enter commercial term lending markets.

Federal Business Development Bank (FBDB)

Because FBDB has been a leader over the years in devising new business services and has been officially a lender of last resort, the study team is of two minds about its future.

a. On the one hand, a number of analyses have concluded that FBDB lending has outlived its usefulness. The immaturity of Canadian financial markets of twenty or thirty years ago has disappeared, and it is hard to make the defence of serious market imperfections for direct government intervention today. It is likewise striking that every single province has some mechanism for making or guaranteeing loans to small business.

   The pressure of incompatible objectives has eroded FBDB's credibility. For example, it is officially a lender of last resort, but the accompanying objective of being self-financing means that 85 per cent of applications are refused and those accepted have to pay three or four per cent above prime. FBDB and the Small Business Loans Act live in uneasy juxtaposition anyway with the latter offering markedly cheaper loans while appearing to function more as a marketing device and stop-loss for chartered banks. This line of thought leads to the study team's first preference, that FBDB's loan portfolio be privatized, or sold to provincial institutions. Taking away FBDB's main line of business would of course raise the strongest questions about its continuation as an institution.

b. On the other hand, a good case can be made for keeping, even strengthening, FBDB. Arguably its bundle of services -- loans, counselling, merchant banking, pathfinding, even its tiny venture capital business -- are worth more together than separately. It comes closer to "one-stop shopping" than most federal institutions, a role which could be enhanced. It has reservoirs of high-mindedness and competence that should not

lightly be dissipated. To the degree that partial guarantees of credit extended through chartered banks could be substituted for direct loans, the Bank would be seen to become a partner of both the customer and the chartered bank rather than an usurer or competitor. Even without that feature, FBDB's program design appears to be more efficient than, say, that of the Farm Credit Corporation or the Indian Affairs loan portfolio. If government were to keep FBDB, the team feels its role might be expanded by transferring to it the Indian loans portfolio and possibly loan support to the farming and fishing sectors. With respect to the Indian loans portfolio, eligibility should be expanded to all native businesses. What FBDB has learned about training and counselling mainstream small businessmen seems to be what native, farm and fishing businesses need.

The FBDB is only one of many federal government agencies offering a multitude of assistance and information services to business. In addition, all the provinces have programs aimed at providing small business with financial and management assistance. (A partial listing of federal and provincial programs is set out in the program review on Business Information Centres.) This multiplicity of programs and agencies leads to confusion among small business people who have neither the time nor the expertise to find a path through the maze. Representatives of small business have called for these programs to be made more accessible and for program delivery to be less bureaucratic. Since the needs of business and the policy objectives of government are varied, it is probably inevitable that numerous programs will exist, although there is room to reduce the number and complexity. At present the FBDB provides a map of the programs -- the ABC - Assistance to Business in Canada book -- but what an entrepreneur really needs is a tour guide who can lead him to the most appropriate programs and ease entry to them. Various options exist for providing this service, all with merits and demerits. Three generic solutions -- a federal "one-stop" shop, devolution to the provinces, a federal pathfinder network -- are discussed in the paper on Business Information Centres. While the options are described separately they are not mutually exclusive. Further work is necessary.

TAXATION

The study team's approach to this complex subject has been to try to understand the impact of the main features of the system on business and to examine the necessity for supplementary direct spending mechanisms, rather than to suggest fundamental reforms to the taxation system itself. Our suggestions for change are all on matters which do not engage the fundaments of tax design but which instead tend to be poorly focused or expensive substitutes for other kinds of action.

Corporate Income Tax Expenditures

Because of the priority given to measures affecting small business, immediate attention was focussed on the small business deduction and to the financing assistance provided by small business bonds and development bonds. In essence, given the amendments just passed which significantly simplify the small business provisions and the great virtues of stability, no preferred option is put forward. The team suggests to the Task Force, however, that the government consider extending the small business bond and development bond provisions which are due to expire on December 31, 1985.

Program reviews on other key features of the corporate income tax have been deferred so they can be compared with related direct expenditure programs. We suspect that there may be too much "giving with both hands". For example, an investment tax credit of 5 per cent was introduced in 1975 for "qualified property". Since then, the definition of "qualified property" has expanded, other types of property as well as scientific research expenditures have been made eligible, the base rate has been increased, and extra increases have been introduced for certain expenditures, regions and taxpayers. Notwithstanding, our impression is that grant programs have not been appropriately modified to reflect the changes in the income tax system. Both expenditures and the number of programs have increased. Our objective during this study will be to determine whether there has been a concerted effort to coordinate the grant programs with the availability of increased tax assistance. If not, the probable conclusion would be that unwarranted duplication exists, with corrective action likely to lie in trimming or eliminating certain programs.

Sales Tax Exemptions

Over the years the list of items exempted from Federal Sales Tax has been continually expanding. This has three results:

a. in some instances, incentives to the misallocation of capital are created;
b. the tax base is significantly narrowed; and
c. boundary problems, inequities, and administrative costs rise.

In examining the twelve specific exemptions assigned to this team, the first step was seeing whether the objective was still valid. If not, removal would ameliorate each of the problems noted. Where the present exemptions are large, inflationary and employment effects and possible offsets were taken into account.

Many of the present exemptions seem to reflect now antique concessions, more political than economic, that have little present relevance. Each one has, of course, created a powerful and vocal constituency behind it, and it would be a courageous government which attempted to repair the damage of many years all at once. Nevertheless, the preferred options are shown in Table 1, with exemptions to be reduced or eliminated underlined. The exceptions tend to be:

a. areas where provinces might feel that the federal government was simply shifting its deficit, or otherwise protest virourously at a time when the federal government is making a concentrated effort at a new level of civility in intergovernmental discourse;
b. areas where administrative problems would be great, especially in relation to the revenue gained;
c. areas where morality intrudes: taxing the sick, for example; and
d. areas where a sales tax might work like a negative tariff, encouraging temporary importation.

This is still an inadequate approach. If the government is intending to reform this area, for example through a value-added tax, all of these suggestions would fall by the wayside. If reform is still years away, however, broadening the base of the sales tax would raise revenue while easing the ultimate transition.

As long as we have a sales tax, however, it should be applied only to final goods. Goods or machinery used in manufacturing processes are meant to be exempt. A problem has arisen with respect to computers, which are being installed in service industries to improve productivity. Although there will inevitably be problems of definition, a complete exemption of computers from the sales tax system would eliminate what is clearly a federally imposed tax on productivity improvements. Such a step would also serve to arrest the migration of computer installations and the associated data flow to the United States, where the price of computers is at least 15 per cent lower than in Canada because of our 10 per cent sales tax and 4 per cent tariff on these goods. The government may want to consider early action on the computer problem and a more detailed study of non-traditional inputs to other industries, especially service industries.

The trade-off between tax and direct incentives is well known, and the government has already expressed a preference where feasible for the automaticity and sureness of the former. The study team agrees. Still, the tax system is an expensive way of accomplishing narrowly focussed objectives, in two senses. First, the free rider problem means that the revenue cost of a tax incentive is typically considerably greater than the expenditure cost of a discretionary program. Second, every new tax incentive or exemption derogates from the goal of simplicity in taxation.

In comparing tax measures with direct expenditures, the study team was struck by the different standards of accountability exacted from the designers and managers of the two different modes of accomplishing public purposes. Expenditure programs benefit from standards and cost-benefit methods developed by Treasury Board in their design, internal audit and financial control measures in their implementation, and detailed evaluation to the standards of the Comptroller General after they have been in operation. Departmental managers have half a dozen central agencies peering over their shoulders constantly. Taxation is a different world. The quantum of money involved is often an order of magnitude greater. The basis, in program design, for expecting certain behavioural change among the clients is economic theory supplemented by anecdote in the case of taxation, whereas it is mostly contractual in the case of expenditure programs. Finally, post hoc evaluation is as rare on tax measures as it is routine elsewhere.

Table 1: Sales Tax Exemptions
(millions of dollars)

Tax Cost 85-86	Exemption	Comment	Alternative Would Yield (85-86)
9200	services	Wait for tax reform	0
3100	food and beverages	Wait for tax reform	0
885	clothing and footwear	Conflicts with other programs	160
775	home heating fuels and electricity	Provincial objection	0
525	non-manufacturing commercial uses of fuel and electricity	Provincial objection	0
475	reduced rate on building materials and equipment	For industrial plant	450
350	goods competing with on-site construction, including ready-mixed concrete	Diminished necessity	200-250
300	transportation equipment	Non-provincial only	60
255	newspaper and magazine production	Expensive route to objective	180
155	drugs	Moral	50-70
135	municipal purchases	Provincial	0
125	construction equipment	Diminished necessity	115
120	purchases by hospitals and sanitoria	Provincial, moral	0
95	books	Expensive route to objective	60
50	first $50,000 of manufacturing sales	Not worth effort	0
45	construction materials and equipment for educational institutions	Provincial	0
25	provincial purchases (non Reciprocal Tax Agmt.)	Provincial	0
15	health appliances	Moral	0
12	bicycles, tricycles	Whimsical	12
5	metric scales and conversion kits	Exemption obsolete	5
5	outputs of craftsmen, artists,	Not worth effort	0
5	goods manufactured by the handicapped	Moral	0
5	imported antiques	Not worth effort	0
5	scientific apparatus	Supports R&D objective	0
5	cultural and religious materials	Not worth effort	0
5	amusement devices, equipment for fairs and exhibits	Reverse tariff	0
5	coin manufacturing	Reverse tariff	0
5	goods in travellers' baggage	Not worth Effort	0
16687			1292-1362

OVERVIEWS AND PROGRAM ASSESSMENTS

OVERVIEW

FEDERAL SALES TAX EXEMPTIONS

Over the years a number of manufactured goods have been made exempt from federal sales taxes or have enjoyed reduced rates of tax. The business study team has assessed the appropriateness of special tax treatment provided to twelve groups of commodities. If these commodities were all taxed at the general 10 per cent sales tax rate, they would provide close to $3 billion in gross new federal revenues.

When a commodity is exempted from tax, boundary problems and inequities develop. Thus as particular items were made exempt from federal sales tax, they were followed by demands to make similar goods, or goods falling in a like class, also exempt from the tax -- after bicycles were exempted, tricycles were also exempted from tax. As tricycles were exempted an inequity developed as toys continue to be taxed.

Over time, exemptions have therefore led to loss of tax revenues and inequities. At the present time there would appear to be continual representations being made by business for additional or broadened exemptions. These representations point out competitive disadvantages which are due to the status quo definitions, and coverage of goods exempt from tax. As governments acquiesce to these representations the list of goods exempt from tax grows and revenues decline.

Some exemptions, for example those relating to construction, were made to stimulate an economic activity as opposed to correcting a structural problem. As such they should have had sunset clauses. Instead these exemptions were allowed to continue indefinitely at significant costs to the government. Many of these exemptions were included in the federal budget of November 1974.

The federal government's tax base has been eroding over the years and to maintain a given level of revenues, tax rates have had to be increased. There is a limit on how high tax rates can be. The study team is of the opinion therefore that the tax base ought to be broadened. Removing exemptions from sales taxes can help in this endeavour.

Re-imposing taxes on exempt goods is a tax increase and will have an impact on prices, employment and groups which have so far benefitted from exemptions. These potential impacts have been taken into account in the study team's assessment of each of the twelve groups studied. In these respects some general comments could be made. Over the last year the Consumer Price Index (CPI) has increased at the slowest rate in years. There does exist today, therefore, an opportunity for actions which do have the detrimental effect of raising prices; in other words, if measures which have the impact of raising prices must be implemented, it is better to do so when inflation is low.

Any tax increase could lead initially to lower levels of employment. In the case of removing tax exemptions, employment would decrease relatively more in those sectors that are directly affected. The study team does not have at its disposal the complex econometric models needed to measure such impacts (or the impacts of increasing sales taxes versus other means of tax increases such as corporate or personal taxes). In the assessment of each group of exemptions, however, the study team has attempted to provide an idea of employment impacts. In almost all cases, such impacts are expected to be small, almost negligible, since the price increases inherent in removing individual exemptions are in themselves small relative to total sales. The exception could be in clothing and footwear for which exemptions from sales tax are worth about $800 million annually.

Removing an exemption from tax could bring about strong reaction from those groups in society presently benefitting from the exemption. Thus while the study team, in its assessment of a particular group of exemptions, might find reasons to suggest removal of such an exemption, it is left to the Task Force and the government to weigh the team's assessments against other considerations. For example, the assessments of exemptions afforded the construction industry imply that these exemptions could be removed. However, if it is considered that residential construction initiatives are high in priority in the government's economic plans then the alternative that would raise sales taxes on say building materials would run counter to this priority and therefore may be rejected. If, however, there is no glaring need to lend further support to this sector, then increasing sales taxes on building materials to the level applicable in general, that is from 6 per cent to 10 per cent, should be considered.

Removing certain tax exemptions could provide the government with the opportunity to demonstrate that all segments of society are contributing to improving the government's financial situation -removing exemptions for passenger transportation equipment and for bicycles could fall into this category of considerations. (On this note, the business study team is of the unqualified opinion that the exemption on bicycles, and therefore tricycles, should be removed. While the revenue impact is small, about $12 million per year, it is still large in comparison to many expenditure programs being assessed by the team.) Conversely, keeping certain exemptions in place, such as those for small manufacturers, could buttress the government's support for priority areas. If many groups in society are asked to relinquish some good, and are seen to be doing so, then outcries from individual groups could be muted.

Re-imposing taxes by removing exemptions for certain commodities will have a positive impact not only on federal revenues but also on provincial revenues whenever provincial retail sales taxes exist for the same items. Falling into this category would be the consumer items: clothing, footwear and bicycles. For another category of goods, however, increasing federal sales taxes could be detrimental to provincial expenditures; for example if sales taxes on books and drugs were raised indiscriminately, provincial costs for education and health would increase. Of course education and health institutions could be made exempt from tax as is the case for other purchases.

If the tax exempt status offered certain items were to be changed, it would be preferable, where possible, to levy the new tax at the wholesale level so as not to worsen domestic manufacturers' position vis-a-vis imports. Applying a sales tax at the wholesale level could pose administrative problems but these have been encountered and resolved in the past. The typical problem case would involve the retailer who is also the importer of a given item. In these cases a margin on imported prices could be specified by Revenue Canada, after consideration of importer mark-ups for similar goods, and the importer/retailer could be taxed at the derived wholesale price. It should be noted that certain goods are already taxed at the wholesale level, for example cars and cosmetics.

To reduce the shock of re-imposing sales taxes on goods now exempt or of increasing tax rates, consideration could be given to phasing in these increases, say over two to four years, or to imposing a lower rate of tax than the general 10 per cent rate.

The study team's assessments of sales tax exemptions as they affect the business community are now summarized. Individual assessments, their descriptions, "expenditures", and observations are appended.

		Revenue Impact ($ million)
1.	**Small Manufacturers** the existing exemption for small manufacturers, with annual sales up to $50,000, should be maintained.	-
2.	**Non-Manufacturing Commercial Use of Electricity and Heating Fuels** the existing exemption should be maintained for now due to the negative implications for federal-provincial relations. Its removal could be considered as part of a longer term exercise in energy policy.	-
3.	**Building Materials** consideration should be given to increasing the present 6 per cent tax on building materials to the general 10 per cent rate.	450
4.	**Goods competing with On-Site Construction** a study of the competitive economic situation of producing exempt goods on-site versus off-site should be made for each exempt good. If the economics show that imposing the federal sales tax would notshift production from off-site to on-site, then the sales tax should be fully imposed on such items. Off-site production is basically a manufacturing process.	200-250

5.	**Construction Equipment** consideration should be given to re-imposing a full sales tax on those items now exempt from tax.	115
6.	**Transportation Equipment** consideration should be given to re-imposing a full sales tax on passenger transport equipment used for domestic travel except those used for urban transportation, school buses and those used for transporting the handicapped. The exemption of freight transportation equipment should be maintained so as not to lose competitiveness with U.S. carriers.	60
7.	**Newspapers and Magazines** consideration should be given to eliminating the sales tax exemption. If we wish to support Canadian content in periodicals this should be handled separately through a cultural program and not be part of the sales tax system.	180
8.	**Books** consideration should be given to eliminating the sales tax exemption. If government wishes to support Canadian publishers, it should be done through the Book Publishing Program and Canada council grants. Also, provision should be made to exempt governments, universities and public libraries.	60
9.	**Arts and Crafts** the existing exemption should be maintained.	-
10.	**Bicycles** the exemption should be removed.	12
11.	**Drugs** consideration should be given to imposing sales taxes on non-prescription drugs but not on prescription drugs. Institutions such hospitals, nursing homes etc. could be made exempt from the tax.	50-70

12.	**Clothing and Footwear** consideration should be given to removing present exemptions. Due to the large tax base involved, and therefore large impacts, this tax could be phased-in, say at 2 per cent per year.	160 (first year)
TOTAL		1287-1357

The revenue impacts shown above are rough estimates based on the information the study team has been able to assemble in a short period of time. Of note is that the alternatives presented for the three groups of commodities related to the construction industry could lead to an increase in construction prices of around 2 per cent. This price increase is equivalent, however, to a 0.2 per cent change in interest rates, assuming a 20 year amortization period.

Imposing sales taxes on certain consumer items would be regressive in nature. This is true in the case of drugs. While it is thought the same would be true for clothing and footwear, statistical data do not bear this out on an overall basis. Nevertheless it must be recognized that in a great number of individual cases, the re-imposition of this tax would be burdensome. Thus any tax measure which would lead to an increase in prices for consumer items would be perceived as being regressive. If the government chose to address this problem by providing offsetting benefits, tax and universal payments mechanisms are available. For example, to ease the burden of increased taxes on clothing, footwear and drugs, should these alternatives be chosen, increases in family allowances or child tax credits and in old age security payments or guaranteed income supplements could be considered.

It is recognized that the present sales tax system, with all of its exemptions and reductions, is not ideal. It is also recognized that moving the federal sales tax to the retail level where the provinces apply their commodity taxes could be problematic. The study team nonetheless urges the government to continue its push for reform of its sales tax system, in particular to develop ways and means of implementing a Value Added Tax (VAT), a system that is already common in other developed countries. Determining its feasibility and implementing a VAT could take years. In the meantime, broadening the tax base as suggested earlier would ease the ultimate transition to a reformed system.

SALES TAX EXEMPTION - TRANSPORTATION EQUIPMENT

OBJECTIVE

To reduce cost pressures in the transportation industry.

AUTHORITY

Excise Tax Act.

DESCRIPTION

In 1974, transportation equipment used for commercial purposes, mainly public transportation, was exempted from federal sales tax. Equipment for private purposes, such as autos, corporate aircraft and vans/trucks having gross vehicle weighting of less than 16,000 pounds, are subject to tax.

The removal of this sales tax resolved one administrative problem, albeit a small one. Prior to 1974, aircraft used for international travel were partially exempt from tax since foreign aircraft operating in Canada were non-taxable. This meant that some pro-rate formula had to be applied to aircraft used for both domestic and foreign trips.

On an annual basis, exemptions on transportation equipment apply to about $3 billion worth of goods.

BENEFICIARIES

All users of public transportation (freight and passenger) and the transportation industry.

EXPENDITURES

Using the Department of Finance's method for estimating tax expenditures associated with exemptions, the expenditures for this program are approximately as follows (millions of current dollars):

	83-84	84-85	85-86	86-87	87-88
Foregone Tax Revenues	265	290	300	325	350

OBSERVATIONS

Whether the original objective of this expenditure is still valid today is difficult to determine. Cost pressures always exist.

ASSESSMENT

Imposing a new tax on the freight transportation industry could have a significant impact on the industry's ability to compete with U.S. carriers. Recent deregulation in the U.S. has increased competitive pressures in freight transportation. One course of action could be to have equipment used for transborder traffic continue to be exempted from tax but this would create administrative chaos given the amount of equipment that is used for both domestic and transborder traffic.

Removing the exemption on passenger transportation equipment is more feasible. This action could lead to increased passenger fares and could be viewed as regressive (although higher income groups tend to travel more). The air passenger transportation industry is in a deregulation phase, which could result in lower fares. The re-imposition of sales taxes on equipment should not affectthese fares drastically. To be equitable among the various modes of transport the tax, if re-imposed, should apply to equipment used in all modes of transport. Consideration could be given, though, to excluding certain equipment such as that used for urban transportation and for transporting the handicapped. Consideration might also have to be given to the re-introduction of a discount formula for equipment used in international traffic to ensure no loss in competitive position.

OPTIONS

The study team recommends to the Task Force that the government consider re-imposing the sales tax on passenger transportation equipment with exemptions remaining for urban transport vehicles, school buses, vehicles for the handicapped, and perhaps rail transport. The sales tax would be applied at the wholesale level. The impact of this measure on total transportation costs would be negligible, after giving effect to depreciation allowances. The impact on the industry would also be negligible. This tax could increase government revenues by about $60 million annually, depending on which exemptions were kept.

Another option would be to phase in the tax on the selected and passenger transportation equipment, say over two years.

SALES TAX EXEMPTION - SMALL MANUFACTURERS

OBJECTIVE

To make the sales tax system administratively feasible.

AUTHORITY

Excise Tax Act.

DESCRIPTION

Until 1975, manufacturers with annual sales of $3,000 or less were exempt from taxes on their sales. In 1975, the annual sales limit was raised to $10,000 and in 1978 to $50,000, where it stands today. All production equipment purchased by eligible firms is sales tax exempt but unlike larger manufacturers, other inputs are taxed. At the threshold sales limit, the small manufacturers' exemption could represent a maximum tax saving of $5,000 per year though in practice the saving would only be about $2-3,000 since inputs are taxed.

BENEFICIARIES

The number of small manufacturers benefiting from this exemption is likely in the range of 5,000 to 10,000. Their geographic and sectoral distributions are unknown.

EXPENDITURES

The level of expenditures associated with this exemption is unknown, though it is probably on the order of $20 million per year.

OBSERVATIONS

In addition to making the sales tax system administratively feasible, this exemption reduces the reporting burden on small business. It also provides these businesses with some advantage or, looked at another way, offsets their natural disadvantages (such as lack of market power) vis-a-vis larger manufacturers.

The very rapid increase in threshold limits between 1975 and 1978 has led to a situation where the foregone revenue from this exemption is greater than the foregone administrative expense in many cases. It has also led to a large disparity in taxes paid at the threshold level. For example, a manufacturer with sales of $50,001 would pay about $2-3,000 more in sales taxes than a manufacturer with sales of $50,000.

ASSESSMENT

This exemption is justified on the grounds of administrative feasibility and reducing the reporting burden for small business.

The sales tax disparity around the threshold sales level could be resolved by making the first $50,000 sales of all manufacturers exempt from sales taxes. This, however, would increase the government's tax expenditures and its deficit by an amount on the order of $150 million per year. In this case, the costs clearly outweigh the benefits.

Although the threshold sales level has not been increased in over six years, the benefits of the exemption at the current level are still substantial. Thus there is no need to change the level at this time. Also, given the objective of administrative feasibility, the underlying costs of administering/assessing a firm with $50,001 sales are not thought to be high enough to warrant an increase in the $50,000 limit.

OPTIONS

The study team recommends to the Task Force that the government maintain this exemption without change.

SALES TAX EXEMPTION - ELECTRICITY AND HEATING FUELS

OBJECTIVES

The commercial use of electricity and heating fuels has always been exempt from sales taxes. The objective of this exemption, if in fact it was considered an exemption for sales tax purposes, is unknown.

AUTHORITY

Excise Tax Act.

DESCRIPTION

Manufactured and processed goods used by the non-manufacturing commercial (NMC) sectors are subject to sales tax generally. Since electricity and heating fuels can be considered processed goods under Finance's benchmark system, these inputs to the NMC sectors should be taxable.

It is presumed that a federal tax on electricity was never imposed as this would have met strong opposition from the provinces. The exemption was therefore applied to heating fuels so as to be equitable among energy sources

It is estimated that this exemption applies to about $5 billion worth of goods, if industrial prices for electricity and heating fuels are used.

BENEFICIARIES

The non manufacturing commercial sector of the economy (trade, services, etc.) comprises about 3/4 - 1 million entities throughout Canada.

EXPENDITURES

Using the Department of Finance's method for estimating tax expenditures associated with exemptions, expenditures for this program are approximately as follows (millions of current dollars):

	83-84	84-85	85-86	86-87	87-88
Foregone Tax Revenues	405	445	525	575	625

OBSERVATIONS

Imposing a sales tax on use of electricity and heating fuels by NMC sectors could pose some definitional and administrative problems. For example, if this tax is applied to use by apartment buildings it should also, to be equitable, be applied to homeowners. Defining an NMC business could be problematic. Would professionals be subject to tax on their use of energy and what if they worked out of their own dwellings?

One alternative could be to levy a sales tax at the producer's level. Manufacturing users could be eligible for a rebate, since as a general rule all inputs to manufacturing processes are tax exempt. A tax credit mechanism could be put in place for homeowners and renters.

Imposition of a sales tax on heating fuels would, however, lead to a situation where heating fuels would be double-taxed unless their tax bases were the value-added amounts rather than sale prices. (The federal government already imposes taxes on crude oil and natural gas.) While it could be argued that a precedent exists in that gasoline is taxed, this tax is a consumer tax to offset the costs of road building and maintenance and to contribute to a national purpose, Petro Canada.

If a sales tax were to be applied to electricity and heating fuels,then, to be equitable, the tax should also be applied to other sources of energy such as coal and wood. This argument could also be extended to user-owned solar and wind energy outputs.

ASSESSMENT

Imposing a sales tax on electricity would certainly meet strong opposition from provincial governments and would, therefore, be subject to lengthy negotiations.

Imposing the sales tax only on non-manufacturing commercial users would lead to definitional problems in addition to increasing the costs of conducting business for those affected, mainly small businesses.

Any tax on energy sources should be considered in the context of the National Energy Policy.

OPTIONS

The study team recommends to the Task Force that the government consider maintaining this exemption, and the issues raised in the assessment be considered by the Department of Energy, Mines and Resources.

SALES TAX EXEMPTION - DRUGS

OBJECTIVE

To reduce costs to consumers.

AUTHORITY

Excise Tax Act.

DESCRIPTION

In 1967, sales taxes on drugs were removed. Until 1967 sales taxes were applied to drugs except for those supplied but not sold directly to patients in hospitals. On an annual basis, the exemptions on drugs apply to about $1,500 million worth of goods. Prescription and non-prescription drugs each account for about 50 per cent of the total.

BENEFICIARIES

Drug users in Canada. While virtually impossible to measure, it could be that prices for drugs are reduced by about 5 per cent as a result of this measure. To the degree that provincial governments bear the costs of prescription drugs or drugs delivered in hospitals, their costs are somewhat reduced.

EXPENDITURES

Using the Department of Finance's method for estimating tax expenditures associated with exemptions, the expenditures for this "program" are approximately as follows (millions of current dollars):

	83-84	84-85	85-86	86-87	87-88
Foregone Tax Revenues	120	140	155	170	185

ASSESSMENT

Like tax exemptions on other consumer goods, it is difficult to determine whether the original objective of the exemption is still valid. However, many drugs are "necessities" and there is a moral point about taxing the sick. To the degree that genuinely necessary drugs are supplied (a) under prescription and (b) through public or private health insurance schemes, the concern diminishes.

Provincial reaction to the removal of the sales tax exemption would probably be negative as their health costs would increase. While some provinces could absorb these higher costs, the fiscal positions of many, especially the smaller provinces, would be significantly affected by such a measure.

OPTIONS

The study team is of the opinion that the sales tax exemption could be ended for non-prescription drugs only. Provincial concerns could be allayed by continuing the exemption for purchases by institutions such as hospitals and nursing homes. (While this alternative would mean imposing a regressive tax on consumers, it could be argued that the truly ill, those requiring prescription drugs, would still benefit from exemptions. Increased revenues under this alternative could be in the range of $50-70 million annually. If the tax were to be re-imposed on drugs, it should be applied at the wholesale level, as with cosmetics.)

SALES TAX EXEMPTION - CLOTHING AND FOOTWEAR

OBJECTIVE

To reduce cost to consumer

AUTHORITY

Excise Tax Act.

DESCRIPTION

In 1973, children's clothing items were exempted from federal sales taxes. In 1974, this exemption was extended to all clothing and footwear items. On an annual basis, these exemptions apply to about $8 billion worth of goods.

BENEFICIARIES

All residents of Canada pay lower prices -- about 10 per cent less given retail mark-ups -- for clothing and footwear. This reduction in prices leads to a higher consumption of clothing and footwear than otherwise might exist and therefore also benefits manufacturers and workers in the textile, clothing and footwear (TCF) industries and retailers of these items. Since approximately one-third of the Canadian market is served by imports, importers and foreign manufacturers also benefit from this tax exemption.

To the extent that the approximate $800 million in foregone tax revenues represents a general tax reduction, this exemption has a general effect of preserving and creating jobs throughout the economy, with a relatively greater effect in the TCF and retail industries.

EXPENDITURES

Using the Department of Finance's method for estimating tax expenditures associated with exemptions, the expenditures for this program are approximately as follows (millions of current dollars):

	83-84	84-85	85-86	86-87	87-88
Foregone Tax Revenues	700	800	885	930	980

OBSERVATIONS

The benefits to the TCF industries, whether intended or not, should be considered in concert with other measures aimed at these industries. Clothing and footwear items have been subject to tariff protection in the range of 22-25 per cent, and to import quotas which reserve about two-thirds of the market for domestic producers. In addition there are direct expenditures for these sectors -- $267 million over the period 1982-86. The two industries remain an important source of employment (about 120,000 employees, mainly in Toronto, Montreal and Winnipeg). About 30,000 additional jobs in the textile industry are related to clothing production in Canada.

If industry support is one of the aims of the sales tax exemption then the richness of this program needs to be questioned, especially given the magnitude of other protection and expenditure measures that are in place.

If reducing costs to consumers continues to be the principal aim of the exemption, then there is a conflict of objectives with tariff and quota protection measures. These latter measures represent a cost to consumers of over $1 billion each year. Conversely, they represent gains to the domestic producers, importers, and foreign producers of these items.

While there may be confliciting objectives, one can argue that the sales tax exemption provides in effect some relief to consumers from the costs they bear for tariff and quota protection. In this case, the tax exemption returns to being an industry support measure.

It has been argued that clothing and footwear items are necessities and, on these grounds, should be exempt from tax. This argument, however, does not deter provinces from levying retail sales taxes on these items nor all governments from levying taxes on other necessities such as gosoline.

Family expenditure data indicate that re-imposition of the sales tax would not be regressive. (Conversely, the exemption provides a greater benefit to higher income groups.) Nonetheless, re-imposition of the sales tax would represent a burden on low-income groups.

ASSESSMENT

The costs of quota and tariff protection and of direct expenditures for the clothing and footwear industries, well over $1 billion annually, appear to be excessive. In the view of the study team there has been no improvement in the overall competitiveness of these two industries under the quota regime, although quotas were imposed in the first place to provide these industries with some time for rationalization and improved competitiveness. These issues are important ones to be considered in the development of sector policies and strategies for the future.

This assessment relates to the sales tax exemptions on clothing and footwear. The view is taken that these exemptions provide some relief to consumers from the costs they already bear in supporting the two industries. A direct route for reducing these costs would be reduction or removal of the quotas and a reduction in tariff rates. However, the existence of quotas and high tariffs are taken as given here and the options relate to whether any relief should be given, whether partial relief should be given, or whether relief should be provided to only certain groups in society.

OPTIONS

The study team presents the following options for consideration by the Task Force and government:

Remove the sales tax exemption on clothing and footwear:

a. It could be ended immediately. The inflationary impact of this alternative would be too small to measure; the CPI would increase by 0.3 per cent as the tax base for clothing and footwear represents $8 billion of the total $270 billion consumer expenditures. Federal revenues would increase by $800 million. Employment in the textile, clothing and footwear sectors would be reduced as higher prices for these goods would lead to less consumption. The estimates of job loss associated with this alternative vary by source. It is our guess that anywhere up to 7,000 jobs could be lost in the TCF sectors if this alternative were implemented. However, this loss would be offset

to some extent, as new jobs would be created elsewhere as the deficit decreases or as the revenues are re-directed to other programs with job creation impacts.

b. The exemption could be phased out, say at 2 per cent per year. Federal revenues would increase by $160 million in the first year, by $320 million in the second year, etc. The job loss impact would be much less severe than in option a. above.

Provide only partial relief to consumers:

a. The exemption could be removed but clothing and footwear items could be taxed at a low rate, say 5 per cent. Federal revenues would increase by $400 million.

b. The exemption could be continued for children's clothing and footwear only. Federal revenues would increase by an estimated $500 million.

Provide relief only to families with children and the aged:

Under this option the sales tax exemption could be removed completely or partially but there would be an offsetting benefit for families with children and the aged. Offsetting benefits to the aged could be effected through increased old age security payments or could be targetted at the low-income sub-group through increased guaranteed income supplement payments. Offsetting benefits to familites with children could be effected through higher family allowance payments.

All of the above options would in effect lead to increased government revenues and add to the costs consumers bear for maintaining the two industries. There has been discussion that perhaps offsetting benefits, as in the third option, could be structured so that the whole package remains revenue neutral -- that is, increased revenues gained from removing the sales tax exemption would be redirected back to consumers. If revenue neutrality is considered to be important, then perhaps the status quo should be maintained.

Phasing in the sales tax at say two per cent per year, would likely be the least disruptive option in terms of

inflation and employment and would have such small impacts that offsetting benefits may not be required.

Finally, if a sales tax is re-imposed it should be applied at the wholesale level so as not to put domestic manufacturers in an unfair position vis-a-vis imported clothing and footwear.

SALES TAX EXEMPTION - BUILDING MATERIALS

OBJECTIVES

To stimulate residential and non-residential construction by moderating prices and to help induce business investment.

AUTHORITY

Excise Tax Act.

DESCRIPTION

Sales taxes on building materials were reduced by 4 per cent in 1974. Manufacturers and importers of building materials (for example, bricks, lumber, tiles, cabinets, paint, ducts, electrical heating equipment, etc.) are eligible for the sales tax reduction.

These reductions apply to about $11.2 billion worth of goods on an annual basis.

BENEFICIARIES

The construction industry and, to a small extent, purchasers of dwelling units and non-residential structures and manufacturers of equipment.

EXPENDITURES

Using the Department of Finance's method for estimating tax expenditures associated with the tax rate reduction of 4 per cent, expenditures for this "program" are approximately as follows (millions of current dollars):

	83-84	84-85	85-86	86-87	87-88
Foregone Tax Revenues	435	450	475	500	525

OBSERVATIONS

The value of residential and non-residential construction is about $40 billion annually. The impact of the tax reduction, $450 million in 1984-85, represents 1.1 per cent of final prices for construction goods. Thus the job impact of this tax "expenditure" while being positive, is likely to be negligible.

ASSESSMENT

Since the tax reduction was introduced to provide a stimulus to the industry, it should have had a sunset clause. The industry, however, will argue that there is always a need to stimulate construction and the tax reduction is, therefore, needed on a permanent basis.

OPTIONS

The study team recommends to the Task Force that the government consider removing the 4 per cent tax reduction on building materials. In the view of the study team, this measure is likely to be opposed by the construction industry. The financial impact of this alternative would be to increase government revenues by about $450 million per year. The impact on prices for dwelling units and non-residential structures would be very marginal, about 1 percent. The job impact on the construction industry, while negative, would also be marginal.

Another alternative would be to phase-in the tax rate increase, say over two years.

SALES TAX EXEMPTION - CONSTRUCTION EQUIPMENT

OBJECTIVE

To stimulate residential and non-residential construction by moderating prices.

AUTHORITY

Excise Tax Act.

DESCRIPTION

Sales taxes on big-ticket construction equipment were removed in 1974. These items include excavation equipment, cranes, paving equipment and repair and replacement parts for such equipment.

These exemptions apply to about $1.2 billion worth of goods on an annual basis.

BENEFICIARIES

Purchasers of big-ticket construction equipment and, to a much lesser extent, purchasers of dwelling units and non-residential structures and manufacturers of equipment.

EXPENDITURES

Using the Department of Finance's method for estimating tax expenditures associated with exemptions, expenditures for this "program" are approximately as follows (millions of current dollars):

	83-84	84-85	85-86	86-87	87-88
Foregone Tax Revenues	105	115	125	140	155

OBSERVATIONS

If this exemption were removed, it is thought that there would be a negligible impact on construction prices and on jobs in the industry. The extra costs to the industry, after allowing for depreciation allowances, are very small in comparison to the total value of construction, which is $40 billion per year.

ASSESSMENT

Since these exemptions were introduced to provide a stimulus to residential construction, they should have had a sunset clause. The industry, however, will argue that there is always a need to stimulate construction and therefore the exemption is needed on a permanent basis.

OPTIONS

The study team recommends to the Task Force that the government consider removing sales tax exemptions on construction equipment. (This could meet opposition from the construction industry. The financial impact of this alternative would be to increase government revenues by about $125 million annually).

A second alternative would be to remove the exemptions but apply a reduced rate of tax on construction equipment; for example, 6 per cent as for building materials. Or alternately, increased tax rates could be phased-in over a period of years. This alternative might be more agreeable to the industry. Tax revenue increases would depend on the level of reduced rates or phasing-in period.

The impact of both alternatives on prices for dwelling units and non-residential structures and on jobs in the industry would be marginal.

SALES TAX EXEMPTION - GOODS COMPETING WITH ON-SITE CONSTRUCTION

OBJECTIVE

The first sales tax exemption for this class of goods was introduced in 1963 to allow equitable tax treatment between concrete products built on-site and those built off-site (concrete blocks).

AUTHORITY

Excise Tax Act.

DESCRIPTION

Goods covered by this exemption include those defined in Section 26 (4) of the Act and ready-mix concrete. They are taxed only on the value of input materials and not on their sale price; for example, the tax on steel beams is applied on the value of steel used in the production of the beams and not on their sale prices. Since 1963, this exemption has been applied to a broader range of goods classified as "competing with on-site construction"; for example, septic tanks are now eligible for this exemption.

Due to the restricted base upon which the sales tax is applied, the effective rate of tax on Section 26(4) class of goods could average up to 3 per cent, as compared to the normal 10 per cent on manufactured goods and 6 per cent on building materials. The exemption is applied to about $4 billion worth of goods annually.

BENEFICIARIES

Manufacturers and importers of goods covered by Section 26(4) of the Act, producers of ready-mix concrete and to a lesser extent, purchasers of commercial structures and the construction industry.

EXPENDITURES

Using the Department of Finance's method for estimating tax expenditures associated with tax reductions, expenditures for this program are approximately as follows (millions of current dollars):

	83-84	84-85	85-86	86-87	87-88
Foregone Tax Revenues	245	290	350	380	410

In arriving at estimates of foregone revenues, it is assumed that goods covered by this exemption would otherwise be taxed at 10 per cent.

OBSERVATIONS

The design of this exemption has in itself led to inequitable treatment among similar goods. Other building products not covered by this exemption are taxed effectively at a higher rate, 6 per cent versus an average 3 per cent for this class of goods. Also, there are differing effective rates within the class of goods covered by this exemption -- concrete products are effectively taxed at about 1 per cent, competing wood products at about 2 per cent, and competing steel products at about 3 per cent.

ASSESSMENT

The objective of this exemption, that is, having an equitable tax treatment between goods manufactured off-site and the same goods built on-site, is plausible. However, since the introduction of this exemption in 1963, the economics of prefabrication off-site in a manufacturing plant versus building the same products on-site has changed. Thus for many goods in this class of exemption, the re-imposition of a full sales tax on goods manufactured off-site presumably should not lead to a change in location of the fabrication process.

Since introduction of the exemption in 1963, the number of goods qualifying for this exemption has grown. It would appear that this growth in numbers has resulted from a desire for tax reduction as opposed to correcting an unfair competitive situation. For example, it is doubtful that the existence of a full sales tax on septic tanks manufactured offsite would provide a competitive disadvantage in relation to those built on-site.

OPTIONS

The study team recommends to the Task Force that the government consider reviewing each product included in Section 26(4) of the Act to determine whether imposition of a "full" sales tax would place off-site manufacturers of the product in a disadvantageous position in relation to on-site fabrication of the same product. Those products not meeting this competitiveness test could be removed from the exemptions list and be taxed at the same rate as for building materials.

SALES TAX EXEMPTION - BICYCLES

OBJECTIVE

There is no statement of objective for this exemption available in official documents. All other types of exercise and recreational equipment are taxable. It is possible that the exemption was designed to assist a company that is no longer in business.

AUTHORITY

Excise Tax Act.

DESCRIPTION

In 1974, bicycles were exempted from the federal sales tax. This subsequently led to tricycles being exempted from the sales tax although toys continue to be taxed. There are about 5 manufacturers/assemblers of bicycles in Canada.

BENEFICIARIES

All bicycle and tricycle owners. The tax expenditure of $12 million has no impact on employment in Canada.

EXPENDITURES

Using the Department of Finance's method for estimating tax expenditures associated with exemptions, the expenditures for this "program" are approximately as follows (millions of current dollars):

	83-84	84-85	85-86	86-87	87-88
Foregone Tax Revenues	10	12	12	13	13

ASSESSMENT

Since the objective of this exemption was unclear, it is probably not valid today.

OPTIONS

The study team recommends to the Task Force that the government consider removing the sales tax exemption on bicycles and tricycles. This action would increase revenues slightly. Re-imposing this tax could be considered to be regressive although the impacts would be insignificant. The apparent anomaly between the tax-exempt status for tricycles and the tax status for toys would be removed by this alternative.

Given the general reaction by groups affected by tax increases and the relatively small amount of tax expenditures involved in this item, it may be preferable to implement this alternative only if other goods were to be removed from tax-exempt status. As in several other cases, the sales tax, if re-imposed, should be applied at the wholesale level.

SALES TAX EXEMPTION - BOOKS

OBJECTIVES

Not specified. Presumably to support education and culture in Canada.

AUTHORITY

Excise Tax Act, Schedule III, Part III: "Education, Technical, Cultural, Religious, and Literary".

DESCRIPTION

This exemption was originally restricted to books "for the promotion of religion", authorized text books, and books sold to educational institutions and the handicapped (1924). It was gradually extended to include all "printed books that contain no advertising and are solely for educational, technical, cultural or literary purposes", maps, charts, college and school annuals, etc. (1953-64).

BENEFICIARIES

This exemption primarily benefits foreign-controlled companies and importers.

Benefits provided:

Imported books	-	67 per cent
Books published in Canada	-	33 per cent

Since about 29 per cent of Canadian published books are by Canadian authors, less than $8.5 million of this tax expenditure supports the publication of books written by Canadians.

EXPENDITURES (millions of current dollars)

83-84	84-85	85-86	86-87
75	85	95	100

OBSERVATIONS

Many European countries (e.g., West Germany, France, Sweden, Italy, Finland) do not exempt books from V.A.T. Reduction of Canada's tariff (originally 10 per cent) to zero in 1979 has already provided significant benefits to the U.S. which is the primary source of imports.

The sales tax exemption does not address the three major problems affecting the book publishing industry: foreign competition, distribution, and financing problems. Recent studies indicate that $465,000 is needed to finance $1 million in sales of Canadian general interest or trade books as compared with $140,000 for imported books. In 1977, according to Statistics Canada, bank charges and interest for Canadian-controlled firms were triple those of foreign-owned firms; a typical foreign-owned firm earned a profit of 7 per cent of net sales versus an average loss of 0.4 per cent sales for Canadian-controlled firms.

Elimination of the exemption -- to the extent that additional costs are passed through to consumers -- could exacerbate current trends toward declining sales.

Libraries and educational institutions accounted for approximately 32 per cent of domestic purchases, excluding French-language books, in 1979. Effects of increased costs on institutional budgets might need to be addressed either by an exemption for institutional purposes or by an offseting increase in the Book Publishing Development Program.

Elimination of the exemption could give rise to criticism of a "tax on knowledge", as happened in Australia, unless it were done in the context of more comprehensive measures to broaden the sales tax base.

OPTIONS

The study team recommends to the Task Force that the government consider eliminating the general sales tax exemption for books. This would generate roughly $85 million (assuming stable sales volume).

Negative effects could be offset through:

- Increases in and/or better targetting of existing Book Publishing Development Program and Canada Council grants.

- Inclusion of the publishing industry under broader-based industrial support programs where feasible (e.g., consider extension of tax provisions applicable to manufacturing sector to publishers of Canadian-authored books and/or low interest or guaranteed loans). This would cost approximately $3.5 million.

- Provision of a limited tax exemption for qualified institutions (governments, universities, public libraries).

SALES TAX EXEMPTION - NEWSPAPERS and MAGAZINES

OBJECTIVE

Governments have generally taken the view that it is objectionable to tax knowledge.

AUTHORITY

Excise Tax Act.

DESCRIPTION

All newspapers and magazines, whether imported or manufactured in Canada, are exempt from the provisions of the Federal Excise Tax Act (9 per cent prior to October 1984, currently 10 per cent) provided the advertising to editorial ratio is no more than 80:20 although single issues can devote up to 90 per cent of space to advertisements without attracting the tax.

BENEFICIARIES

The sales tax exemption for newspapers tends to help the strongest papers as it applies to manufacturing costs for both editorial and advertising content.

Due to the large proportion of imported magazines, about two-thirds of the benefits from the exemption for magazines flows to foreign publishers. If the sales tax exemption was originally viewed as a measure to encourage Canadian magazine publishing, it seems to have been very inefficient.

EXPENDITURES

Finance estimates the cost of this exemption as follows (millions of current dollars):

	83-84	84-85	85-86	86-87
Newspapers	130	150	165	175
Periodicals	75	80	90	95

In addition to the above excise tax savings, postal rate subsidies during 1980 amounted to $28 and $90 million respectively.

OBSERVATIONS

Prior to 1953, newspapers paid federal sales tax on their raw stock of paper and ink. This was removed because they were then declared to be manufacturers. Magazine raw stock has always been exempt.

The Kent Commission (1981) reported that the newspaper industry was considerably more profitable than the steel industry, the manufacturing sector, or the retailing and service industries.

The sales tax relief does not address the issues that face the newspaper industry today, namely corporate concentration and the editorial quality of daily papers.

The provinces charge sales tax on magazines but not on newspapers. In the U.S., there are no federal sales taxes on newspapers and magazines, as such a type of tax does not yet exist. Most U.S. states charge sales tax on magazines.

Profitability in the magazine industry for companies with sales between $0.1 and $1.0 million improved in the late 1970s to a reasonable pre-tax profit on equity although the numbers are too soft to provide more than a general indication.

The Income Tax Act (1976) disallowed tax deductions for advertising placed in foreign media or for a Canadian edition of a foreign magazine that is primarily directed at Canadians. This seems inconsistent with a sales tax exemption largely favouring foreign magazines.

ASSESSMENT

The primary beneficiaries are Canadian newspaper proprietors, especially the big ones, followed by imported magazines and finally Canadian magazines. Consumers benefit by a price reduction which, after distribution costs, might be on the order of five per cent. The small impact of such cost increases, or cost differentials with competing media, will probably not prevent some protest from the present beneficiaries if this exemption is removed.

OPTIONS

The study team recommends to the Task Force that the government consider eliminating the federal sales tax exemption for newspapers and magazines. This measure would yield $255 million in 1985/86. Government could consider an off-setting increase in subventions to Canadian periodicals through a cultural program (but be wary of a subvention or tax credit based on "Canadian content"). Leaving Canadian magazines no worse off in the aggregate would cost on the order of $30 million in 1986.

SALES TAX EXEMPTION - CRAFTSMEN, SCULPTORS AND ARTISTS

OBJECTIVE

To encourage cultural development in Canada through assistance to the Canadian cultural industry and Canadian artists.

AUTHORITY

Excise Tax Act.

DESCRIPTION

Paintings, drawings, pastels, sculptures, statues, hand-woven tapestries, and handmade appliqués are exempt from federal sales tax. Federal sales tax has been imposed on lithographs (except for the original), since 1980.

This tax exemption has been in place since 1924. The tax threshold for annual sales was raised from $3,000 to $10,000 in 1975, and to the present $50,000 in 1978. This applies to "Works of Art" produced with the aid of mechanical devices. Unique works of art made by hand are specifically exempt regardless of value.

There is no estimate of the annual cost of this tax expenditure although the excise tax group advises that it would be less than $5 million, mostly from imported works of art.

The 1980 Canadian Conference of the Arts estimated that between ten and twelve thousand individuals are full-time producers of craft products and a further 15,000 produce for the market on a part-time basis. In 1976 the average annual income of professional craft producers was less than $9,000, about 20 per cent below that of manufacturing workers.

BENEFICIARIES

Primarily the art galleries and other outlets, as most of the individuals would fall within the $50,000 small business limit. Art galleries supposedly benefit because it lowers their cost and the saving does not likely show up in the retail price. However over time, the benefit would likely be shared by the artist, the intermediary and the purchaser.

ASSESSMENT

Removal of this tax expenditure would require the craftsmen to become licenced, and create an uneconomical amount of administrative work for them and the government. The minor amount of tax burden that would be incurred would be a heavy burden to the craftsmen.

OPTIONS

The study team recommends to the Task Force that the government consider maintaining the tax exemption without change, but reinstating the pre-1980 sales tax relief to lithography. A line between artistic lithography and manufacturing could be drawn at, say, 99 prints.

CORPORATE TAX EXPENDITURES

INVESTMENT TAX CREDIT R&D AND R&D FAST AND EXTRA WRITE-OFF

OBJECTIVES

To increase private industry's share of the national R&D effort with provision for regional needs and development opportunities. The target for R&D is 1.5 per cent of GNP in 1985.

AUTHORITY

Income Tax Act

DESCRIPTION

Before 1983, the rules provided for immediate income tax deduction for current and capital expenditures, 50 per cent additional allowance on R&D in excess of the three previous years' average expenditures, and a 10 per cent investment tax credit (20 per cent in designated areas and 25 per cent for Canadian controlled private corporations).

In 1983 these rules were replaced to provide for immediate income tax deduction for current and capital expenditures, the flow-out of credits to investors, and a 20 per cent cash refund of investment tax credits (40 per cent for small business). The new rules also allowed tax credits generated by expenditures on scientific research (SRTCs) to be "renounced" by the company entitled to them in favour of a tax credit to investors of 50 per cent of the expenditure renounced. The SRTC (quick-flip) procedure was suspended in late 1984. The investment tax credits were raised ten percentage points across the board.

BENEFICIARIES

In 1980, 1,370 companies did R&D work, as defined by Finance - an increase of 80 per cent over 1978. 38 per cent of the companies had assets of less than $1 million, and 35 per cent had assets in the $1 - $10 million range. These two groups of companies accounted for 28 per cent of the allowance, which represented 19 per cent of the R&D expenditures.

EXPENDITURES (millions of current dollars)

Tax Benefit	1980	1981	1982
Investment tax credit	60	75	80
Immediate write-off	55	70	60
Special 50% allowance	45	50	50

The Department of Finance estimated in April 1983 that annual R&D tax support was about $225 million. The new rules would increase this by about $100 million.

In January 1984, Finance estimated that the SRTC would cost $200 million cash flow the first year, but it actually exceeded one billion dollars. The significant issue here is that this is not a cost but simply a reduction in cash flow for 1984. The true cost of this foregone revenue would be based on the time value of money.

OBSERVATIONS

Canada's R&D appears to be at a low level in certain sectors when compared with other major industrialized coutries. (It was about 1 per cent of GNP in 1979 and 1.3 per cent in 1983, compared with 2 to 3 per cent in other countries).

There is an imbalance in activity among the government, university and industry sectors. Based on broad assessment indicators, it has been judged to be desirable to increase Canada's level of R&D in the private sector.

The tax incentives and after-tax cost for R&D in Canada compare favourably with the other major industrialized nations.

The definition of what qualifies for R&D in the Income Tax Act and its regulations is very narrowly written and interpreted compared to other countries. Revenue Canada usually gives the narrowest interpretation possible of the underlying qualifying expenditures in determining the base for R&D incentives. This situation drives R&D dollars to foreign countries where tax laws are less restrictive and is a continuing cause of frustration and irritation to Canadian business. This is the major reason why certain industries lag so badly in adopting new or improved technologies for processes and products.

The U.S. has a shortage of research people and uses many devices to attract Canadians. This compounds our problem of developing and retaining highly qualified human resources. The key to successful R&D is the people we can retain. They, in turn, need the right environment and recognition.

In 1984, a paper by the Ministry of State for Science and Technology recommended that the federal government clarify its role in support of scientific and technology activities. Currently the government seems to want to cover all bases, whereas it should put priority on those areas that are of greatest relevance to Canada's needs. Also, provision should be made to allow for reallocation of resources to new priorities. The paper also points out that there appears to be sufficient federal R&D involvement in advanced manufacturing technologies for the near future, but the income tax treatment by Finance does not appear to support this strategy.

The Department of Finance has indicated that where small cash-starved companies are involved, they view this as a financing mechanism.

Tax incentives comprise slightly less than one-half of the total federal government support for R&D. The balance consists of government grants. In addition, there are also provincial tax incentives and grants. The potential for overlap or duplication is significant.

OPTIONS

The study team recommends to the Task Force that the government consider maintaining the Investment Tax Credit for R&D, with modification to the "wholly attributable" requirement in the law so that the correct level of research incurred by industry is recognized. (The study team notes that this amendment might entail revising the wording to something like "reasonably and directly attributable". A good understanding between Finance and Revenue Canada is required. For the small, non-taxable business unit increase the present 40 per cent cash refund of the current year's ITC to 50 per cent.)

The study team further recommends that the government consider eliminating the geographic element of the ITC. If economists and politicians believe the R&D ITC is necessary, it should be applied consistently across the country. These incentives currently divert investment from where the optimum return would be realized. Some "grandfathering" might be considered.

If the R&D ITC is simply supposed to be a financing mechanism, then it should be eliminated and be handled through an appropriate financing vehicle. In this manner, only those companies that require financial assistance will receive it.

Although we have proposed the elimination of the SRTC provision, an escrow provision and a bank letter of credit or other arrangement to cover the Part VIII income tax could be introduced if the government decides to reinstate the SRTC.

INVESTMENT TAX CREDIT, UNINCORPORATED BUSINESS AND GENERAL

OBJECTIVE

To promote certain types of capital investment.

AUTHORITY

Income Tax Act

DESCRIPTION

Taxpayers (individuals and corporations) investing in qualified property, qualified transportation equipment, qualified construction equipment, and certified property or incurring a qualified expenditure in respect of scientific research are entitled to claim credits against income taxes otherwise payable. The rates at which the credits are computed range from 7 per cent to 50 per cent of the amount expended and are dependent upon (i) the region where the property is to be used, or the scientific research is to be carried out; (ii) the nature of the property; and (iii) in the case of scientific research, whether the taxpayer is a Canadian-controlled private corporation (CCPC). The ITC reduces the cost base of the related property (and thus the base for depreciation) or the deductible amount of the scientific research expenditure.

Qualified property and certified property include new buildings together with new machinery and equipment to be used in a number of business activities. Included in those activities are manufacturing and processing; activities of the extractive industries plus the processing of oil, industrial minerals and mineral ores; prospecting; farming and fishing; logging; and the storing of grain.

To qualify as certified property, which attracts the 50 per cent rate, the property must be acquired for use in specified lesser developed areas of each of the provinces and the territories. Under present legislation, this rate will not be available for acquisitions after December 31, 1985.

Investment tax credits were introduced in 1975. Originally they were available at a rate of 5 per cent on qualified property. Since 1975, the definition of qualified property has been expanded; other types of property, as well as expenditures on scientific research, have been made eligible for the credit; the rate at which the credit is computed has been increased; and additional rate increases have been introduced for certain expenditures, certain regions, and certain taxpayers (specifically, CCPCs carrying on scientific research).

Originally, the ITC could be claimed against the first $15,000 of tax otherwise payable and against only one-half of the excess of tax otherwise payable over $15,000. Now the ITC can be claimed against the full amount of tax otherwise payable.

Under present legislation a cash refund equal to 20 per cent (40 per cent for CCPCs) of unused ITC's earned in a year, after April 19, 1983 and before May 1986, may be claimed. Unused and unrecovered (through cash refund) ITC's may be carried back up to three years and forward up to seven years for offset against tax otherwise payable for those other years.

BENEFICIARIES

All individuals and corporations that incur qualifying expenditures. In 1980 (most recent data available), the number of profitable corporations that claimed investment tax credits was approximately 26,000. (Information on the number of individuals claiming ITC's has not been obtained, nor requested.)

EXPENDITURES

Using the Department of Finance's method for estimating tax expenditures, the expenditures relative to the ITC are presently in the range of $600 to $700 million per year for corporations. On the assumption that a reasonable allocation of this "tax expenditure" would be in accordance with the average distribution of taxable income for the manufacturing, mining, agriculture, forestry and fishing sectors in 1980 and 1981 combined, the allocation of a tax expenditure of $650 million would be approximately as follows (millions of dollars):

Atlantic	38
Quebec	141
Ontario	241
Prairies	152
British Columbia	77
Yukon/N.W.T.	1
	650

OBSERVATIONS

A separate program review has been carried out for the ITC relative to R&D. The comments that follow pertain to the use of ITC's relative to other capital investments.

The various measures adopted to enrich the ITC would appear to support one of the following two contradictory conclusions:

a. the ITC is effective in achieving the desired objectives thus warranting a broadened base, additional objectives, and increased funding; or

b. the ITC as originally introduced was too restricted and of too little value to be effective.

Presumably, and based upon Budgetary comments accompanying the enrichment measures, one should assume the conclusion in (a) to be valid. However, we are advised by Finance that there are no accurate means of measuring the incremental effect of this program. Thus, is the tax expenditure justified?

It is known that in a great many cases decisions to proceed with qualifying expenditures are not prompted in any way by the availability of the ITC. This situation probably is more prevalent at present than in the earlier years of the ITC as the ITC now has become an accepted "given" within the tax system. Certainly, however, there are many other cases where the ITC has been an integral factor in the decision to proceed with particular projects.

Finance's taxation policy is guided, in part, by the objective that the tax system should serve to maintain business activities in Canada that could be conducted elsewhere, and should not discourage transfers of business activities to Canada from, say, the U.S. While this is most difficult for Finance to evaluate, our impression, based on discussions with them, is that they believe this objective is reasonably satisfied.

As for regional skewing of ITC rates, again there are no accurate means of evaluating whether they promote additional investment in specific regions.

Given the evaluation problems referred to in the previous paragraphs, Finance does seek out anecdotal evidence for indications of the perception and success of its taxation policy as well as for input towards future policy decisions.

Despite the continual expansion and enrichment of the ITC provisions, our initial impression is that the grant programs have not been appropriately modified in response to that increased assistance. In fact, it appears that the number of programs and the related expenditures also have increased. Corrective action to coordinate the sources of assistance will probably require alterations to, or the removal of, particular programs. It may, however, require a reduction in ITC rates. There is consensus within the study team that, as a general rule, government assistance should not exceed 50 per cent of the cost of a project. (This is to be compared with the 90 per cent ceiling that now prevails.)

ASSESSMENT

ITC's are a direct and efficient means of providing financial assistance to qualifying taxpayers in a taxable position. However, a valid assessment of their effectiveness is dependent upon whether:

a. the primary objective is to encourage expenditures that would not otherwise be incurred, or that would otherwise be deferred; or

b. the intention simply is to provide general assistance to all taxpayers who incur qualifying expenditures, thus reducing their costs.

As already stated, a reliable assessment relative to the objective described in a. cannot be made. However, if that is the objective, this is not an effective vehicle (being very expensive) as assistance also is provided to those who would be incurring the expenditures anyway. If the objective is as described in b. ITC's are an effective means of providing assistance to those in a taxable position and can be considered as being in the nature of automatic grants for qualifying capital investments and scientific research expenditures.

Since ITCs are of fairly general application, it might be assumed that market forces would cause the reduced costs to be reflected in reduced prices of goods. The extent, if any, to which this is achieved is not, and probably cannot, be measured.

OPTIONS

Based on these considerations, the study team recommends to the Task Force that the government consider modifying investment tax credit provisions as follows:

a. ensure that grant programs that would duplicate part or all of the ITC assistance are either eliminated or used solely to complement, with clear reason, ITC assistance;

b. ensure that additions to qualifying property/expenditures are made (with sunset provisions where appropriate) only after a clearly defined, and economically justifiable, need has been proven;

c. restrict further increases in ITC rates to those property additions or expenditures that clearly warrant increased assistance, and provide sunset provisions where appropriate;

d. consider an extension of, and/or increase in, the refundable provisions in order that those in loss positions (hopefully temporarily) can more quickly realize the assistance for which they have qualified. (Any increase should not be so generous as to cause "perpetual loss" operations to invest imprudently.);

e. in addition to a possible rate reduction, consider limitation on the availability of ITC's to specific taxpayers or regions.

TOTAL ACCELERATED DEPRECIATION

OBJECTIVES

To promote certain types of capital investment.

AUTHORITY

Income Tax Act

DESCRIPTION

Taxpayers acquiring depreciable property (land is specifically excluded) for use in business or to derive income therefrom are entitled to claim depreciation at prescribed rates which vary by type of property. For most types of property, depreciation can be claimed at only one-half the prescribed rates in the year of acquisition.

In general, the prescribed rates tend to exceed the rates at which depreciation on those same assets is claimed for financial statement purposes, at least in the earlier years of ownership. This effect tends to be offset in later years because of the fact that, for most classes of assets, depreciation for tax purposes is claimed on a declining balance.

Further to this general comment, income tax legislation enables depreciation to be claimed at particularly high rates for specified types of property. Subject to the one-half rate rule for the year of acquisition, some of the special rates are as follows:

Type	Rate (per cent)
Certified feature film	100
Earth-moving equipment	50 (on declining balance)
Certain pollution control equip.	50 (straight-line)
Certain manufacturing equipment	50 (straight-line)

As accelerated depreciation enables a faster write-off for tax purposes than for financial statement purposes, the result, while described as a tax expenditure is more properly described as a tax deferral. In effect, the write-off for tax purposes is brought closer in line with either the expenditure of funds or the incurrence of the related liability. Therefore, the real benefit, measured

against a hypothetical alternative of claiming the same depreciation for tax purposes as for financial statement purposes, is the present value of the taxes deferred. This would be significantly less than the amount ascribed through the Department of Finance's method for estimating tax expenditures.

BENEFICIARIES

All taxpayers acquiring assets qualifying for accelerated rates of depreciation.

EXPENDITURES

Using the Department of Finance's method for estimating tax expenditures, the amount for 1980 (per Finance) was $2,280 million and for 1981 (per Statistics Canada) was $2,795 million. In both cases the amounts pertain solely to corporations. This is the most recent information available. On the assumption that a reasonable allocation of this tax expenditure would be in accordance with the average distribution of taxable income for the manufacturing sector in 1980 and 1981 combined, the allocation of the total tax expenditure for those years of $5,075 million would be approximately as follows:

	millions of current dollars
Atlantic	335
Quebec	1,370
Ontario	2,284
Prairies	558
B.C.	528
TOTAL	5,075

OBSERVATIONS

We are advised by Finance that there are no accurate means of measuring the incremental effect of this tax expenditure.

Finance's taxation policy is guided, in part, by the objective that the system should serve to maintain business activities in Canada that could be conducted elsewhere, and should not discourage transfers of business activities to Canada from, say, the U.S. While most difficult for Finance to evaluate, our impression, based on discussions with them, is that they believe this objective is reasonably satisfied.

Given the effects of inflation, the positive "cash flow" equivalent of depreciation based on cost is not, nor is it in fact intended to be, a sufficient means of providing for plant replacement. Nevertheless, the effect of accelerated depreciation on cash flow, in a sense, does have a positive effect in this regard.

The one-half rate rule for the year of acquisition was introduced in 1981. It significantly lessened the impact of accelerated depreciation. The application of this rule in 1981 was such that it applied only to certain property acquired after November 12. Accordingly, it had a relatively minor impact on the final tax expenditure amount for that year of $2,795 million.

The objective of this tax expenditure is similar to that of the investment tax credit (ITC) and of numerous grant programs. Yet, with the continual expansion and enrichment of the ITC provisions, it appears that the number of grant programs and the related expenditures also have increased.

ASSESSMENT

Accelerated depreciation does promote certain types of investment. Films serve as an example. A further example, but more difficult to prove because of the existence of ITCs and the frequent availability of grants, is the increased automation of manufacturing processes.

OPTIONS

The study team recommends to the Task Force that the government consider retaining the concept of accelerated depreciation. Sunset provisions, where appropriate, should be considered in connection with any expanded use of this concept. (Such provisions have been used on occasion in the past.)

Although the one-half rate rule for the year of acquisition has significantly lessened the impact of accelerated depreciation, the study team recommends that consideration be given to a thorough review of the depreciation system, and its comparison to those of our trading partners, to determine whether the present rate structure and method of calculation is appropriate in the current environment.

RESOURCE SECTOR (EXCLUDING ENERGY)

OBJECTIVES

To promote the exploration for minerals, the exploitation and development of mineral resources, and the processing of ore to the prime metal stage.

AUTHORITY

Income Tax Act

DESCRIPTION

The general thrust of the various income tax provisions is:

(i) To permit the deduction, in computing income for tax purposes, of a major part of the capital and other related costs before income from a particular mine becomes taxable, and (ii) to recognize the depleting nature of mineral resources. This is achieved as follows:

a. In those cases where provincial mining taxes are payable, which in some instances will occur even though business losses are being experienced, a deduction of these taxes in computing income/loss for income tax purposes is permitted. (This is not a credit against income taxes otherwise payable).

b. Royalties payable in respect of a Canadian resource property or the production in Canada of metal or minerals to a stage not beyond the prime metal stage (although being expenses of doing business which are payable whether or not the underlying operations are profitable) are not permitted to be deducted in computing income for tax purposes. This is intended to be compensated for, at least in part, by a "resource allowance" of 25 per cent based on specially defined "resource profits". "Resource profits" for this purpose would have a meaning similar to that in the paragraph below except that income from processing in Canada of foreign ore would be excluded; also, the "resource profits" would not be reduced by interest expenses related to the mining/processing activities nor by exploration and development expenses.

c. New depreciable property acquired for the purpose of producing income from a mine situated in Canada is generally depreciated for tax purposes at a rate of 30 per cent per year computed on a declining balance basis. However, additional depreciation in respect of that property can be claimed in a year up to the amount of the net income of the mine for that year. Net income for this purpose is the amount determined before deducting the resource allowance referred to in (b) above, the depletion allowance, and deductions for exploration and development expenses.

d. Cumulative Canadian exploration expenses of resource companies can be fully deducted up to the amount of net income otherwise determined for the year, before deducting the depletion allowance. Any unclaimed balance can be carried forward for deduction in computing income of subsequent years. There is no limit on the carry foward period.

e. Up to 30 per cent of cumulative Canadian development expenses can generally be deducted in computing income for a year. The unclaimed balance can be carried forward indefinitely for similar treatment in future years. Canadian development expenses of resource companies (other than those in the energy sector) include the cost of:

   1. rights to explore for minerals in Canada,

   2. rights to royalties computed by reference to production from mineral resources in Canada, and

   3 real property in Canada (excluding depreciable property) where its value depends upon its mineral resource content.

f. Foreign exploration and development expenses can be deducted in computing income up to the greater of:

   1. 10 per cent of their cumulative total, and

   2. the amount of royalties and net income otherwise determined for the year to have been derived from foreign mines.

g. In recognition of the depleting nature of natural resources, resource companies (excluding in this instance those in the energy sector) may deduct a depletion allowance in respect of:

   1. mineral resources, and

   2. the processing, to the prime metal stage or its equivalent, of ore from mineral resources.

   The depletion allowance, generally, is 25 per cent of "resource profits", as specifically defined for this purpose; however, the allowance cannot exceed the "earned depletion base" as of the end of the particular year. "Resource profits"for this purpose include net income from:

   1. the production in Canada to any stage of minerals from Canadian mineral resources operated by the taxpayer,

   2. the processing in Canada of ore from mineral resources in or outside Canada to any stage not beyond the prime metal stage, and

   3. royalties computed by reference to production from a mineral resource in Canada.

   The "earned depletion base" includes, among many items, 33-1/3 per cent of (i) expenditures on most Canadian exploration expenses, (ii) the cost of certain processing equipment, and (iii) the cost of certain depreciable property acquired for the purpose of producing income from a mine.

h. 33 1/3 per cent of certain Canadian exploration expenses incurred after April 19, 1983, form a "mining exploration depletion base" (MEDB). This base enables the deduction of a "mining exploration depletion allowance" (not greater than the MEDB) of 25 per cent of net income (from all sources) for the year.

In addition to the foregoing there are various provisions providing for the flow-through of deductible items to successor and second successor corporations. There are also provisions whereby exploration and development expenses can be incurred directly by an outsider, pursuant to an agreement with a company, with that person receiving shares of the company as consideration.

BENEFICIARIES

Those carrying on resource activities.

EXPENDITURES (millions of current dollars)

The following schedule sets out the expenses claimed by companies in the "metal mining" , "other mining" and "primary metals manufacturing" sectors in respect of exploration and development, depletion, and the resource allowance for 1980 and 1981. This information was obtained from "Corporation Taxation Statistics" for 1981 as produced by Statistics Canada.

Deductions in computing income for tax purposes	**1980**	**1981**
	(millions)	
Exploration and development	$ 779.1	$ 625.8
Depletion	333.3	274.5
	1,112.4	900.3
Resource Allowance (Note)	965.6	637.0
	2,078.0	1,537.3
Charged on Company books	511.6	679.5
Difference	$1,566.4	$ 857.8

Note: The resource allowance is intended to compensate, at least in part, for the non-deductibility of provincial royalties. However, in 1981, for example, royalties paid by companies (excluding those in the energy sector) amounted to $302 million. By contrast, companies in the energy sector paid royalties of $4,372 million but deducted resource allowances of only $2,879 million.

Based on an effective federal corporate tax rate of 36 per cent (ignoring any surtax), this would equate to a "tax expenditure", as would be computed by the Department of Finance, of approximately $80 to $215 million annually in respect of exploration and development expenses and the depletion allowance. The resource allowance would give rise to a further "tax expenditure" of approximately $230 to $350 million annually; however, given the purpose of this allowance, a more correct determination of the "tax expenditure" would measure the excess of the allowance over the non-deductible provincial royalties. On this basis, the "tax expenditure" for 1981 would be approximately $120 million.

OBSERVATIONS

The "Observations" section of the reports on "Total Accelerated Depreciation" and the "Investment Tax Credit, Unincorporated Business and General" noted that Finance's taxation policy is guided, in part, by the objective that the tax system should serve to maintain business activities in Canada that could be conducted elsewhere, and should not discourage transfers of business activities to Canada from, for example, the U.S. That objective would have little application in this case -- applying to some extent only in respect of processing activities after extraction. The primary objective, therefore, should be to impose on this sector a liability for a fair share of income tax but in such manner as not to discourage the exploitation of our natural resources.

The Mining Association of Canada (MAC) recently presented a submission to the federal government (January 1985) entitled "Economic Renewal and Canadian Mining". The Association noted that the present federal income tax structure, "which incorporates a 'resource allowance', is generally regarded as equitable by the industry". The main concern rests with provincial taxes and the view that the provincial systems should be brought more into line with the federal system. Some suggestions for change to the federal system were, however, advanced and included the following:

a. remove the "timing" problems associated with the "flow-through" share provisions;

b. make the timing of exploration deductions optional in order to enhance utilization of non-capital losses;

c. have investment tax credits relative to mine development costs that are flowed-through to investors reduce the cost base of only the investor's assets and not also those of the company, as is presently the case; and

d. repeal the "half-year" depreciation rule which was introduced with the November 1981 Budget.

The fact that the resource allowance in some cases may over-compensate for the non-deductibility of provincial royalties (it did over-compensate on an overall basis in 1981) can be attributed, at least in part, to the inclusion in eligible "resource profits" of income from processing activities to the prime metal stage. That same income does not also qualify for the manufacturing and processing deduction. If that income were excluded from eligible resource profits, it is reasonable to assume that it would be made eligible for the manufacturing and processing deduction. This mitigates to some extent the effect of over-compensation which, in essence, is the result of an incentive to promote processing of ores in Canada.

The Association also noted in its submission that "a fundamental characteristic of mining is that the prices of mineral commodities are internationally determined". Accordingly, cost increases cannot automatically be passed on to consumers.

Following are selected measures of the economic contribution of Canada's mining industry which were taken from the Mining Association submission:

	1980	**1981**
Employment (thousands of employees)		
Mining	95.6	81.7
Smelting and refining	33.2	29.4
Metal fabricating and mineral manufacturing	262.0	264.5
	390.8	375.6
Value of production (millions of dollars)		
Mining, smelting and refining	$20,870.2	$12,313.9
Share of Gross Domestic Product (percent)	4.1	3.4
Railway tonnes (percent)	51.5	50.1

ASSESSMENT

The federal income tax system does not discourage the exploration for minerals, nor the exploitation, development and processing of mineral ores. It does provide a measure of relief, for those companies in a taxable position for federal purposes, in respect of provincial mining taxes and royalties.

OPTIONS

The study team recommends to the Task Force that the government consider maintaining the present provisions for the resource sector as they are, but to give consideration to the recommendations in the Mining Association submission of January 1985, and in particular to the amendments highlighted above.

LOW TAX RATE FOR MANUFACTURING

OBJECTIVE

To strengthen the competitive position of Canada's manufacturing and processing industries.

AUTHORITY

Income Tax Act.

DESCRIPTION

The manufacturing and processing (M&P) profits deduction was introduced in 1973. It lowers the general rate of federal corporate tax on income derived from M&P activities carried on in Canada. For Canadian controlled private corporations (CCPCs), the M&P deduction lowers the corporate tax rate by 5 percentage points on M&P related taxable income up to $200,000 and by 6 percentage points on amounts over $200,000. For non CCPCs the M&P deduction lowers tax rates by 6 percentage points on manufacturing income. The reduced rate is not available to corporations earning less than 10 per cent of their annual gross revenue from M&P activities carried on by them in Canada.

To qualify for the M&P deduction, a corporation must either manufacture or process goods for sale or lease in Canada. No comprehensive definition of "manufacturing or processing" is offered in the Act or Regulations. Whether a particular operation constitutes manufacturing or processing will depend on the ordinary usage of these terms. Specifically excluded however, are activities such as farming, fishing, logging, resource extraction, processing of minerals up to the prime metal stage, production of electricity and construction.

BENEFICIARIES

All corporations earning at least 10 per cent of their annual gross revenues from M&P activities and which have taxable income.

In taxation year 1980, the federal value of M&P deductions was $480 million. Of this, $360 million (75 per cent) were for companies classified to be in the manufacturing sector and the remainder was for companies

classified in other sectors, but which obviously conducted significant M&P activities. In total 28,500 profitable corporations used the M&P deduction of which 16,500 (58 per cent) were classified in the manufacturing sector.

In the manufacturing sector, the M&P deduction had the effect of reducing effective tax rates by 2.8 per cent for taxation year 1980. (The deduction does not apply to income from other activities carried on by manufacturing firms, for example, importing for direct sales.) The M&P deduction was most relevant for medium size companies as it had the effect of reducing their effective tax rates by 3.5 to 4.0 per cent.

Using the regional distribution of taxable income in the manufacturing sector, shares of the total value of M&P deductions are as follows (per cent):

Atlantic	6
Quebec	25
Ontario	45
Prairies	15
British Columbia	9

EXPENDITURES

There are neither estimates nor reference levels for tax expenditures related to the M&P deduction. Because of the overhang of corporate losses and unused deductions resulting from the 1982 recession, expenditures associated with the M&P deduction are probably currently in the range of $400 million. Over the next several fiscal years, these expenditures can be expected to increase, perhaps to the $500-600 million range, as the economic recovery progresses.

OBSERVATIONS

The M&P deduction confers a preference on manufacturing activities but is only one of many preferences for this industry that date back to the National Policy. Whether such actions have constituted "correct" industrial policy, has always been subject for debate. It is not the intention to enter into such a debate in this assessment. It is therefore presumed that the commitment to promoting manufacturing and processing activities remains in place.

Turning to the M&P deduction, the following table shows a comparison of taxes payable, federal and provincial, for manufacturing corporations versus those for all non-financial corporations. To smooth out the year-to-year fluctuations which are characteristic of corporate financial data, a 1980-1981 average is presented.

	Manufacturing Corporations	**All Non-Financial Corporations**
	80-81 Averages (millions of current dollars)	
A. Book Profit Before Taxes	13,117	31,674
B. Taxable Income	10,197	25,193
C. Income Taxes	3,989	9,768
C/B (per cent)	39.1	38.8
C/A (per cent)	30.4	30.8

The M&P deduction, along with other deductions and tax credits, mainly the small business deduction and investment tax credits, reduce taxes otherwise payable that are computed on taxable income base. In spite of the M&P deduction, which favours the manufacturing sector mainly, manufacturing corporations have paid a slightly higher effective rate of tax on taxable income than have other non-financial corporations. This is likely due to the fact that other sectors have relatively more small corporations which benefit from another deduction, the Small Business Deduction. Using book profits before taxes as the base for determining effective tax rates shows that manufacturing corporations have a slightly lower effective tax rate than other non-financial corporations and this could be due to more (relative) use of deductions -- for example, CCA's -- before arriving at taxable income base. The conclusion is that the M&P deduction, when considered in relation to other deductions and tax credits, does not lead to a situation wherein the effective tax rate for manufacturing corporations is vastly different from effective tax rates for other sectors of the economy.

The fact that there is a smaller M&P deduction -- 5 percentage points -- on taxable income up to $200,000 for CCPCs, reflects the recognition that these corporations are also eligible for the Small Business Deduction.

Some provincial governments, for example Alberta and Ontario, provide tax reductions on income earned from manufacturing and processing activities.

ASSESSMENT

The desired impact of the M&P deduction would seem to be to improve the climate for attracting and keeping M&P activity in Canada. Foreign as well as domestic companies would be targets. A secondary impact, which is unintended, is that the deduction offsets or compensates for other tax deductions and credits used to a greater extent by corporations in other industries.

The issue here is whether the M&P deduction does indeed, in itself, attract and keep M&P activity in Canada and whether the deduction is necessary for improving the competitive pricing capabilities of Canadian firms. In this context one should also bring into consideration a number of other incentives, many offered through the tax system, that are aimed at promoting and reducing the costs of investment in M&P activities.

OPTIONS

The study team recommends to the Task Force that the government consider undertaking a more precise assessment of the impact of the M&P deduction. Especially relevant would be its impact on corporate decisions on whether to locate or expand in Canada as opposed to in other countries.

If the M&P deduction is found to have little impact on corporate decisions and on the competitive pricing capabilities of M&P firms, it should be removed or reduced.

SMALL BUSINESS DEDUCTION (SBD)

OBJECTIVES

The small business deduction is designed to avoid double taxation of corporate source income, to provide additional funds (increase in equity) in order to finance ongoing activities and enable expansion of business, and to restrict application to business income (not employment or investment income).

AUTHORITY

Income Tax Act.

DESCRIPTION

The SBD of 21 per cent is available to a "Canadian-controlled private corporation" (CCPC) and is computed by reference to income from an active business carried on in Canada (ABI). The SBD cannot be claimed on more than $200,000 (business limit) of ABI in any one year. Furthermore, if the CCPC is associated in a year with one or more other CCPCs, the business limit must be shared.

The maximum SBD for a year by a CCPC or group of associated CCPCs is presently $42,000 (21 per cent of $200,000). The SBD was introduced in 1972 as part of a major overhaul of our income tax system. A brief history follows.

a. Prior to 1972, most corporations paid tax of 21 per cent on the first $35,000 of taxable income and 50 per cent on the balance.

b. In 1972, the SBD was introduced. As a transitional measure, it was initially applied at 25 per cent on the first $50,000, the business limit at that time, of ABI. Given the standard corporate rate of 46 per cent, this resulted in an effective tax rate of 21 per cent on the first $50,000 of ABI. The SBD of 25 per cent was reduced by one percentage point per year until it reached the intended level of 21 per cent.

c. The SBD was to cease being available after a CCPC had earned and retained $400,000 (total business limit) of business income.

d. The business limit and total business limit were revised several times as follows:

Date	Business Limit	Total Business Limit
Initial	$ 50,000	$ 400,000
1974	100,000	500,000
1976	150,000	750,000
1982	200,000	1,000,000

e. The measurement of a CCPC's earning and retention of business income was its "cumulative deduction account" (CDA). Prior to 1982, dividends paid from accumulated business earnings reduced the CDA. This provision for reduction of CDA was removed, except in the case of dividends paid to an associated CCPC, for dividends paid after 1981.

f. In July 1983, the Canadian Tax Foundation, at the request of the Department of Finance, sponsored a "Symposium on the Simplification of the Small Business Provisions of the Income Tax Act". A Bill containing proposed legislation for revision of the Income Tax Act was passed in December 1984. This Bill included many provisions to simplify the small business provisions and those provisions, in turn, reflect the response of Finance to the many recommendations arising from the Symposium.

g. The cap established by the total business limit as measured against the CDA is to be removed for 1985 and subsequent taxation years. This amendment is one of those intended to decrease the complexity inherent in the small business provisions. Thus, for 1985 and subsequent taxation years, all CCPCs will be entitled to the SBD each year up to $200,000 of ABI (subject to the rules for sharing among associated CCPCs).

BENEFICIARIES

All Canadian-controlled private corporations with income from active business carried on in Canada.

EXPENDITURES

Using the Department of Finance's method for estimating tax expenditures, the SBD expenditures are approximately as follows (millions of current dollars):

	1980[1]	1981[2]	1984/85 (Estimated)
Tax expenditure	1,305	1,368	1,470

1 - Provided by Finance; most recent information available.

2 - Provided by Statistics Canada; most recent information available.

OBSERVATIONS

Given the objective of avoiding double taxation when the positions of shareholders and their corporations are integrated, the inclusion of the SBD as a tax expenditure and the attachment of a related "cost" of approximately $1.5 billion can be questioned.

Taking into account the dividend tax credit for individuals, the technically correct corporate tax rate on business income, in order to eliminate double taxation, is 33 1/3 per cent. This effective rate is paid (approximately, after taking into account provincial taxes) by corporations eligible for the SBD through the imposition of a special 12½ per cent tax payable by those corporations on dividends they pay. This corporate distributions tax (CDT) (as evidenced by initial draft legislation) originally was intended to apply when dividends passed outside a corporate group, which is consistent with the general exclusion from taxable income of inter-corporate dividends. However, to achieve some degree of simplicity within the CDT provisions, all dividend payments (including those to all other corporations) from income that have been subjected to the SBD are subject to the CDT. This creates an unnecessary impediment to dividend distribution in many cases. Notwithstanding the desire for relative simplicity, serious consideration should be given to an amendment that would allow inter-corporate dividends to be paid, at least among associated companies, without the imposition of the CDT. To achieve equity among shareholders, this may require that the liability for the CDT be moved to the shareholder level but

with the requirement that the tax be withheld and remitted by the paying corporation. Further, the amount to be included in income by the recipient shareholder should reflect the net amount, after the CDT, actually received. These latter suggestions will result in complex legislation. They are representative of the basis for the change from the initial CDT legislation, referred to in 8, so that now all inter-corporate dividends can be subjected to the CDT. This raises a point of principle which is whether simplicity should be achieved at the expense of taxpayers.

Removal of the CDA represents a significant measure to reduce record keeping and concern with maintaining eligibility for the SBD. The provisions relating to the CDA represent one of the most complex parts of the small business tax system and account for a large part of some 1,000 lines in the Income Tax Act. Few small businesses have cumulative incomes approaching the $1 million limit yet all are required to meet the reporting requirement of the CDA.

Removal of the CDA, on the other hand, means that all CCPCs, large and small, will be eligible for the lower small business tax rate on the first $200,000 of ABI. Compared to the status quo, this represents a tax expenditure of approximately $125 million annually. This cost, however, should be compared to the benefits to small businesses, which stand to save a considerable amount through the reduction of accounting and related costs.

ASSESSMENT

The SBD does serve to eliminate double taxation of the corporate source income which is eligible, i.e. ABI not in excess of $200,000 in any one year. Also, to the extent that income is retained in the CCPC or perhaps holding company and thus is not subjected to tax in the hands of individual shareholders, the objective of providing additional funds to finance ongoing activities also is satisfied.

OPTIONS

Given the objectives, the numerous amendments in this area since 1971, and the more recent but overriding concern with simplicity and stability, the study team recommends to the Task Force that the government consider maintaining the

present effective rate of tax for CCPCs and the eligibility criteria (after giving effect to the recent amendments now before Parliament).

However, consideration should be given to the practicability of the amendment suggested in above that would allow inter-corporate dividends to be paid, at least among associated companies, without the imposition of the CDT.

SMALL BUSINESS DEVELOPMENT BONDS/SMALL BUSINESS BONDS

OBJECTIVES

To provide financing assistance in cases of financial difficulty, to:

a. "small business corporations" and cooperative corporations which, in both cases, qualify as Canadian-controlled private corporations, and

b. proprietors and partnerships.

AUTHORITY

Income Tax Act

DESCRIPTION

An eligible small business corporation or cooperative corporation may issue, before 1986, a small business development bond (SBDB) for not less than $10,000 nor more than $500,000 if it is issued for a term not exceeding five years:

a. as part of an arrangement with its creditors approved by a court under the Bankruptcy Act;

b. at a time when most of its assets are under the control of a receiver; or

c. at a time of financial difficulty when it might reasonably be expected to default on an arm's length debt. It is issued, at least in part, in substitution for that debt.

Similar financing under similar conditions is available to individual proprietors and to partnerships of individuals through a small business bond (SBB).

The interest paid on SBDBs and SBBs is not deductible in computing the income for tax purposes of the payer and is treated as a dividend to the recipient. In the case of SBBs, the interest is considered to be a dividend from a taxable Canadian corporation. The following schedule demonstrates the respective positions of a borrower and lender under a regular loan as compared to financing under an SBDB.

Assumptions

a. The borrower is an eligible corporation having an effective tax rate (including provincial income tax) of 25 per cent;

b. the lender is a financial institution having an effective tax rate (including provincial income taxes) of 50 per cent;

c. in the columns headed "Non-taxable", the borrower is either in a temporary loss position or has losses carried over from other years that offset its income for the current year; and

d. the amount of the loan is $100,000.

Borrower

Nature of loan		Taxable Regular	Taxable SBDB	Non-taxable Regular	Non-taxable SBDB
Interest rate (%)		12	6.5	12	6.5
	(If 50 per cent)				
Interest paid ($)	1,200	1,200	650	1,200	650
Reduction in income taxes	600	300	-	-	-
Net cost	600	900	650	1,200	650

Lender

Interest received ($)	1,200	1,200	650	1,200	650
Income taxes	600	600	-	600	-
Net income	600	600	650	600	650

Comments

a. Where the borrower is in a taxable position, it might be said that the federal government (assuming the provincial rate is the same for both the borrower and lender) benefits through increased tax revenue of $300 under a regular loan. Conversely, the $300 might be considered as a minor decrease in computing the "tax expenditure" represented by the small business deduction.

b. Where the borrower is temporarily non-taxable, this "benefit" to the government increases, at least temporarily, by a further $300.

c. The underlying rationale for SBB/SBDB financing is to transfer the "benefits" created through the differences in respective tax rates from the government to the eligible small businesses.

Under present legislation, SBDBs and SBBs cannot be issued after 1985.

SBDBs were introduced in 1979. Prior to February 1, 1982, proceeds also could be used to acquire certain capital property or to finance scientific research activities. Since that time their use has been restricted to financial difficulty situations.

SBBs were introduced in 1981 and their use has always been restricted to financial difficulty situations.

While there is no restriction on the eligibility of lenders, in practice the lenders generally are the banks.

BENEFICIARIES

Eligible issuers of such debt instruments who benefit by an interest rate of slightly more than half the rate that otherwise would be charged.

EXPENDITURES

Information not yet available. Using the Department of Finance's method for estimating tax expenditures, the expenditures relative to SBDBs/SBBs would be computed as the difference between the tax foregone in the hands of the recipients of interest less the tax otherwise payable, if any, by the payers of that interest.

OBSERVATIONS

The financial institutions purportedly had only a limited availability of funds for this type of financing (because of their own taxable status); accordingly, the use of SBDBs subsequently was limited to financial difficulty

situations. This restriction was in order to direct the limited supply of funds to the perceived best use. (A representative of Finance advises that approximately 55 per cent of the funds have gone to the farm sector in situations where there was a good asset base but business problems were being experienced because of the economy.)

ASSESSMENT

SBDBs and SBBs are an effective and direct means of providing financing assistance to small business.

OPTIONS

The study team sees three options:

a. Allow the demise of this form of financing at the end of 1985, which is in accordance with present legislation.

b. Extend its use under the same conditions. As noted, this is an effective, direct means of providing valuable assistance, through a substantially reduced interest charge, to those with temporary cash flow problems. This alternative warrants careful consideration.

c. Reinstate the availability of this form of financing (at least SBDBs) for specified capital additions and the financing of scientific research. Given the difference between the effective small business corporate rate and the standard rate applicable to the financial institutions, this again provides an effective, direct means of assisting the financing of specified small business activities. If, in fact, there is a limited availability of funds for this type of financing and/or if this could conceivably distort capital markets (we are advised there is some thought that it could), this alternative should be dismissed.

INDUSTRIAL INCENTIVE PROGRAMS

INTRODUCTION

Canada ranks as one of the most attractive countries in the world as a place to live but as a place for doing business it suffers from many factors. Canada does not have a large domestic market, weather conditions add to the cost of doing business and wage rates are high. To offset such setbacks, Canadian governments have introduced a number of incentives in order to attract business to locate in this country. Historically, tariffs have been a major instrument used to achieve this objective. More recently, as trade barriers around the world have been falling, more businesses have become internationally footloose and this in turn has led to more competition among countries, and therefore to more incentives, to attract businesses.

Getting the investment climate right is therefore of paramount importance if new businesses are to be attracted to Canada and if existing businesses are to be induced to expand here. The corporate tax system plays a major role in establishing the business environment. Within this system allowances have to be made to compensate for material drawbacks and to make Canada competitive with other countries. To limit cost these allowances generally are targeted at only certain types of activity, for example investments in manufacturing and processing. On top of the tax system, a set of programs have been built up to tackle special situations. These programs can broadly be categorized into two groups: those which induce investments that are considered to be productive and those which maintain weak industries in order to maintain employment. The end result is what seems to be a myriad of tax and program incentives that is confusing to the uninitiated and perhaps overly generous to those who know how, and have the resources, to "work the system". Thus in assessing industrial incentives, both tax and program based, the Study Team has focussed on the efficiency of these incentives, looking for possible overlaps and inappropriateness in today's environment, while still keeping in mind the overall competitive position of Canada as a place for doing business.

The Industrial Incentive programs covered by this overview comprise four corporate income tax expenditures, largely discussed in the previous section, five grant programs and one duty remission program. The activities of the Industry Sector Branches within DRIE also were briefly reviewed.

The specific programs/tax expenditures covered in this overview together with their approximate annual cost, computed in accordance with the method used by Finance, are as follows:

Corporate Income Tax Expenditures	**Approximate Annual Cost** (Millions)
Investment tax credit, general	650
Total accelerated depreciation	2,800
Resource sector (excluding energy)	200 to 600
Low rate for manufacturing	500
Grant Programs	
IRDP	370
DIPP	180
WTIDP	60
CIRB	55
SIAP	35
Duty Remission Program	
Machinery*	350

* As the function of this program is largely controlled by our GATT commitments, our sole recommendation is to consider the transfer of its administration to Revenue Canada, Customs and Excise.

Corporate Income Tax Expenditures

As can be seen from the previous sections, the study team does not suggest significant changes relative to the four corporate income tax expenditure items covered by this overview. Instead, our proposals are for a general tightening-up with the thrust being as follows:

a. ensure that grant programs which would duplicate assistance under the tax system are either eliminated or used solely to complement, with clear reason, the tax system assistance; and

b. ensure that increases or extensions of tax system assistance are clearly warranted, and provide sunset provisions where appropriate.

In addition, the team suggests that those four tax expenditure areas be examined, in light of original and continuing objectives, to determine whether the full extent of those incentives is still warranted. Consideration could also be given to the rate structure. For example, given certain incentive provisions which are of general application and which result in a lowering of the effective tax rate if certain activities are undertaken, is the standard corporate tax rate of 46 per cent still appropriate? Should there be changes in some or all of the various investment tax credit rates or in the manufacturing and processing deduction?

As we have concern with the general perception of tax expenditures, a few comments on the concept involved appear to be in order. We believe that the significance of a tax expenditure is widely misunderstood, being incorrectly equated by many to a tax "loophole". Also, the very term itself raises questions. For example, if one starts with the basic premise that all income belongs to the State, it would follow that everything retained by taxpayers could be said to represent a tax expenditure. Alternatively, if all income belongs to the person who earns it, how can there be "tax expenditures"?

In fact, tax expenditures are intended to be a measure of incentive provisions contained in tax legislation which are designed to encourage taxpayers to undertake, or invest in, certain desirable activities as identified by those setting policy. If one assumes that those activities have been properly identified it should follow that the actual amount of tax paid by a taxpayer, after giving effect

to any relevant tax expenditures, represents that taxpayer's fair share of income taxes. Notwithstanding this intention, it is questionable whether the provisions giving rise to some tax expenditure items are, in fact, of an incentive nature. Some examples follow.

a. One of the objectives of the small business deduction is the elimination of double taxation on corporate income passed on to shareholders as dividends. This double tax effect can be attributed to the standard corporate tax rate. Accordingly, is the elimination of double taxation truly an incentive?

b. Is the ability to carry over certain losses from one year to another an incentive or, given business cycles, etc., simply realistic?

c. Likewise, is the ability to immediately write off exploration expenses an incentive or, given their nature, is it simply realistic?

d. Provincial royalties incurred are, indeed, expenses of doing business, yet they are not deductible in computing income for tax purposes. The resource allowance is intended to compensate, at least in part, for this non-deductibility. Should the availability of the resource allowance be construed as an incentive?

A further problem rests with the amounts computed for the various tax expenditures. Arguments can be put forward that the amounts attributed to certain of the expenditure items are overstated. For example, the benefit derived from accelerated depreciation is a deferral in the payment of taxes. The deferral, in turn, is based on the difference between depreciation for book purposes and that for tax purposes. Finance computes the tax expenditure to be the amount of the taxes deferred, for a particular year. There is a strong argument that the true benefit is simply the value of the use of the money, represented by the taxes deferred, during the deferral period. If the computation were on this latter basis, the amount attributed to the tax expenditure would be substantially less than that determined under the present formula. Also, the amount attributed to investment tax credits is, quite reasonably, the amount actually claimed. However, that amount must be applied to

reduce the capital cost of the related asset, or the deductible amount (in computing income for tax purposes) of the scientific research expenditures. Accordingly, it should be understood that the true cost of investment tax credits is considerably less than their total amount as there is, in effect, a partial drawback under the income tax system. That drawback relates to the effective inclusion of the tax credits in the computation of income.

While we do not wish to debate the merits of tax expenditure accounting, we do believe it important that there be full understanding of the significance, meaning, and method of computation of the various tax expenditure items. Some means should be sought to provide greater public awareness in this regard which would concentrate on the underlying rationale for each item and dispel the notion that they represent indiscriminate giveaways or loopholes.

We noted at the outset that the income tax system plays an important role in establishing the investment/business climate. Accordingly, Finance's taxation policy is guided, in part, by the objective that the system should serve to maintain business activities in Canada that could be conducted elsewhere, and should not discourage (perhaps encourage) transfers of activities into Canada. While most difficult for Finance to evaluate, our impression, based on discussions with Finance, is that they believe this objective is reasonably satisfied. We do, however, have some concern with the cost effectiveness of tax expenditures in general and, in particular, with the apparent lack of a procedure to effectively measure that cost effectiveness.

While an evaluation of the cost effectiveness of tax expenditure items is conceded to be a difficult task, we believe that it should be possible to introduce some measures, albeit perhaps somewhat rough and ready, for this purpose. If the tax system is to contain incentive provisions which result in significant amounts of foregone tax revenue, for example, the investment tax credit, some reasonably reliable means of assessing their cost effectiveness must be implemented. Also, the study team suggests that sunset provisions be used where appropriate when new incentive measures are introduced or when there are additions to existing incentive provisions.

Grant Programs

By means of a summary, the study team recommends to the Task Force that the government consider the following measures relative to each of the five grant programs:

Industrial and Regional Development Program (IRDP)

a. all IRDP eligible projects, except innovation, involving Crown contributions up to a maximum to be specified be devolved to the provinces;

b. IRDP-Innovation be merged with NRC's IRAP and PILP programs with this new program having a maximum contribution level (to be negotiated between DRIE and NRC) and a streamlined application/eligibility process; and

c. other projects presently eligible for IRDP be considered under a new Major Projects Program in DRIE.

d. consideration be given to an amendment to the income tax system so that all grants would reduce both the cost of assets for depreciation purposes and the investment tax credits otherwise computed.

Defence Industry Productivity Program (DIPP)

If viewed as a selective support program for the defence industry, the program continue as a discretionary granting program; however, with consideration given to reduced levels of funding, in light of economic development criteria.

Western Transportation Industrial Development Program (WTIDP)

This program be terminated.

Stopbuilding Industry Assistance Program (SIAP)

The Performance Improvement Grant Component of this program for work commenced after June 30, 1985 be terminated.

Canadian Industrial Renewal Board (CIRB)

a. Operations be curtailed immediately with pending applications passed to DRIE for consideration under IRDP. The spending levels for CIRB would be reduced by the $30 million in uncommitted funds in the Sector Firms Program.

b. Alternatively, CIRB be allowed to continue until its planned closure in March 1986 but with no new funding. Consider directing that $10-15 million of its uncommitted SFP funds be used in its Business and Industrial Development Program.

The team has been struck by the fact that the continual expansion and enrichment of the investment tax credit provisions appear not to have been accompanied by a decrease in the amount of assistance provided under grant programs. There appear to be two main considerations in this regard.

a. Given the assistance available to profitable companies under the tax system, grants should be used only to the extent necessary to achieve incremental and desirable expenditures. While we do not have hard evidence to this effect, we have the distinct impression that the amount of financial assistance under the grant programs has been excessive. Reference levels have been too high.

b. In those cases where company operations are viable but are not currently taxable, the use of grants may be thought necessary to achieve the desirable, incremental expenditures. However, a return to a taxable position can result in an unintended duplication of financial assistance. Two possible remedies, which also will be expanded on later, are as follows:

1. improve the refundability provisions under the tax system; and/or

2. amend the tax provisions to negate the possibility of duplication.

Accountability

As a check on unwarranted or unintended duplication of assistance, we believe that documentation for grants and contributions should routinely include an estimate of the assistance available to the applicant through all the tax and granting systems of all levels of government. From time to time there will be cases where exceptionally high levels of Crown assistance are appropriate, but as a general rule, we believe that the Treasury Board should make it incumbent on the responsible minister to approve personally any stacking, for industrial investment projects of a private nature, to levels above fifty percent or (say) $5 million in Crown support. (Because of the frequent problem of the inappropriability by the performer of the fruits of R&D investments, we suggest elsewhere that the threshold for Ministerial approval in those cases should be set at 75 per cent.)

Tax Incentives vs. Grants

Each of these forms of financial assistance has its strengths and weaknesses. Tax incentives are direct and eligibility therefore tends to be straightforward. However, they represent an expensive means of achieving incrementality and, at present, are of less benefit to those not currently taxable. Grants are more effective in achieving incrementality. However, the process can be time-consuming and expensive (a particular problem for smaller grants) and their discretionary nature carries inherent dangers, for example, favouring one company over its competitors. Some form of a grant system may be necessary for flexibility and national interest projects, which generally would be large -- for example, DIPP. Grants might also be used to substitute for unused portions (because of a temporary loss position) of the tax system; however, as noted above, this can be a relatively expensive means of obtaining assistance for small firms.

Alternative Directions for Consideration

If unused investment tax credits were fully refundable, it would not be necessary to consider the use of grants for companies in temporary loss positions. The inherent problem, however, is that full refundability would also provide support to those firms with little chance for success. Accordingly, while some enhancement of the refundability aspect may be desirable, full refundability does not seem advisable. The use of grants provides some means of monitoring situations to protect against the support of "losers" as long as a return to profitability does not result in duplication of assistance. To this end, two changes to the tax system might be considered:

a. have the investment tax credit computed on the net cost, after deducting grants, instead of on the gross cost as at present; or

b. provide that all grants reduce both the capital cost of the related assets, or the deductible scientific research expenditures, as well as the amount of the investment tax credit otherwise computed.

The first suggested change would serve to reduce duplication while the second which we prefer, would eliminate it. A schedule is attached showing examples of the operation of the tax credit system, after giving effect to these changes, together with a comparison to the present system.

INDUSTRIAL AND REGIONAL DEVELOPMENT PROGRAM (IRDP)
(Regional Industrial Expansion)

OBJECTIVE

The objective of IRDP is to promote regional industrial development through the support of private sector initiatives with particular emphasis on projects, industries and technologies with the greatest potential for economic return, sustained growth and international competitiveness.

AUTHORITY

Industrial and Regional Development Act, Appropriations Act.

DESCRIPTION

IRDP has been in operation since July 1983. It is the successor program to a number of programs which were terminated, the principal ones being the Enterprise Development Program and the Regional Development Incentives Program.

IRDP provides assistance over a wide range of the business development cycle. This is accomplished under the different sections or elements of IRDP. These are:

a. Innovation - to encourage the development of new products and new processes, and to increase industrial productivity and international competitiveness through the support of research and development projects which show promise of economic success or strategic importance to a region and which otherwise would not be undertaken without support. Eligible projects include studies, developing new products or processes, developing technological capability, development and demonstration, and design.

b. Establishment - to assist in the establishment of new production facilities. Eligible projects include studies and plant establishment.

c. Modernization/Expansion - to increase industrial productivity through the improvement, modernization and expansion of existing manufacturing and processing operations. Eligible projects include studies, modernization, expansion and the installation of microelectronic devices.

d. Marketing - to facilitate the identification, development and exploitation of new domestic and international market opportunities, and to enhance competitiveness within existing markets. Eligible projects include activities by non-profit organizations to increase marketing of products or services, and studies.

In processing IRDP applications the Department of Regional Industrial Expansion (DRIE) places emphasis on:

a. Incrementality - no project may be supported unless it would not proceed, insofar as location, scope or timing are concerned, unless support is provided.

b. Commercial Viability - the project and persons undertaking the project must be considered to be commercially viable within reasonable bounds of risk.

c. Significant Economic Benefits to Canada - the project and exploitation of the results of the project must represent significant economic benefits to Canada.

To help ensure that support under IRDP takes regional economic differences into consideration, differing types and levels of support are available across the country. Areas of Canada, as defined by census divisions, have been classified into four groups or tiers through the use of a development index, with Tier I including the most developed areas. The development index assigns a ranking to each census division based on the past employment and income levels of the division and the fiscal capacity of the province in which it is located.

The maximum levels of IRDP assistance are presented in the following table. IRDP contains a provision such that the total amount of government assistance, federal, provincial and municipal, including investment tax credits, cannot exceed 90 per cent of project costs.

The maximum levels of IRDP assistance are presented in the following table. IRDP contains a provision such that the total amount of government assistance, federal, provincial and municipal, including investment tax credits, cannot exceed 90 per cent of project costs.

Element	**Maximum Level of Assistance by Tier (per cent of eligible project costs)**				
	Special I	**I**	**II**	**III**	**IV**
a.Innovation	33.3	33.3	40	50	50
b.Establishment					
a) Studies	N/A	30	30	37.5	37.5
b) Plant Establishment	N/A	17.5	17.5	25	30
c.Modernization/Expansion					
a) Studies	N/A	30	30	37.5	37.5
b) Modernization/Expansion	N/A	17.5	17.5	25	25
c) Microelectronics	N/A	30	30	37.5	37.5
d.Marketing					
a) Non-profit Organizations	45	45	45	45	45
b) Studies	25	25	30	37.5	37.5

N/A - not applicable

BENEFICIARIES

Manufacturing and processing companies receiving IRDP benefits. For the first 9 months of fiscal 1985 the percentage distribution of IRDP benefits was as follows:

Region	**Offers**	**Per cent**	**Funds ($M)**	**Per cent**
Atlantic	243	20	53.8	14
Quebec	458	37	102.0	27
Ontario	291	23	178.3	48
Prairies	159	13	21.9	6
BC & Territories	86	7	19.4	5
	1,237	100	375.4	100

Small firms accounted for the largest number of offers although the largest shares of program funds went to medium and large size companies.

Companies With Sales	Offers (per cent)	Funds (per cent)
Less than $2 million	56	18
$2-10 million	28	16
$10-100 million	13	47
Over $100 million	3	19
	100	100

The distribution of IRDP offers by program element for the first 9 months of fiscal 1985 was as follows:

Element	Offers (per cent)	Funds (per cent)
Innovation	19	17
Establishment	15	16
Modernization/Expansion	55	59
Marketing	3	1
Elements no longer eligible for IRDP	8	7
	100	100

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Salaries	17.6	17.6	17.6	17.6	17.6
O&M	4.4	4.4	4.4	4.4	4.4
Total	22.0	22.0	22.0	22.0	22.0
Contributions	203.0	230.0	350.0	350.0	350.0
Person Years	439	439	439	439	439

OBSERVATIONS

Major adjustments were made to IRDP in November 1984. The "industrial development climate" and "restructuring" elements were terminated. Assistance under the largest element "modernization/expansion" was restricted to projects in Tiers II, III and IV; tourism projects and Crown corporations were made ineligible for benefits and the maximum levels of assistance were reduced (to those in previous paragraph). To speed up the processing of applications for small firms, a problem area until November 1984, eligible projects involving contributions of

less than $100,000 will automatically receive the new maximum contributions if criteria of viability, incrementality and economic benefit to Canada are met. Seventy-two per cent of all IRDP projects involve contributions of less than $100,000. The changes just outlined are expected to result in a reduction of previously forecast expenditures by $175 million per year. These changes addressed some of the concerns that had been expressed about IRDP, concerns which alluded to the role for grants in the industrial incentives package, the program's discretionary nature and slow processing time and the efficacy of the Tier structure.

IRDP attempts to address both industrial development objectives and regional development objectives. Unfortunately national economic efficiency does not easily fit with interregional equity and the conflict in objectives has bedeviled the program from the start; for example, while the expansion of a plant may provide benefits for the region in which it is located, it could be adding capacity to an industry which on the whole is already suffering from an over-capacity situation. In any event a tier system was developed so that benefits under the program could be made available to all areas of Canada, in effect to be able to address both sets of objectives. The tier system, however, has been the object of serious concern from many quarters since first, it is based on statistical data which describe local economic conditions two to three years ago, and not current or expected conditions, and second, its geographic boundaries were drawn up for non-industrial purposes. It is noteworthy that during the first nine months of fiscal 1985, 53 per cent of IRDP funding went to firms located in Tier I areas. While the November 1984 adjustments did not address the concerns expressed regarding the tier system, DRIE is doing so.

IRDP is the federal government's principal grants program for regional and industrial development. Tax incentives comprise the other major component of the government's industrial incentives package. The boundary between tax based incentives and direct grants has always been problematic and likely will continue to be. The relative merits of tax incentives and grants have been documented widely. It suffices to note here that tax incentives are generally non-discretionary, and therefore certain from recipients' viewpoint, they involve less paperwork, their rules are known in advance and they are national in scope. Grant programs tend to service targetted populations and generally impose greater burdens and costs on applicants. On the other side of the "ledger", tax

incentives provide benefits mainly on the existence of taxable income and not on the basis of need nor on incrementality of a project. Grant programs provide incentives where tax incentives are either not of value or not of sufficient inducement. The benefits of tax incentives accrue to profitable and generally larger firms in the more industrialized regions of the country. While the benefits of grants accrue to these firms also, grants and not tax incentives are of more relevance to smaller, less profitable firms in less developed regions of the country.

The devolution of a large part of IRDP to provincial governments is currently under consideration. The objective is to improve the delivery of IRDP to small and medium sized business, to enhance the regional sensitivity of the program and to foster rationalization of direct incentives offered by the federal and provincial governments. It is contemplated that small cases for "Establishment" and "Modernization/Expansion" elements of IRDP - cases involving less than some threshold contribution level ($250,000 or $500,000 or $1 million) - could be replaced by programs defined in new subsidiary agreements. The Tier structure as it presently stands would not be imposed under such an arrangement although each sub-agreement could define economic zones so as to skew benefits to less developed regions. Under a sub-agreement, a joint federal-provincial management committee would oversee the program operations to ensure compliance with agreed on policies and procedures. Above the threshold, IRDP would continue to support capital projects as well as innovation projects of all sizes.

ASSESSMENT

During much of the last ten years, investment incentives in the income tax system have expanded but they were not accompanied by an appropriate reduction in direct incentives (grants) programming. The November 1984 adjustments to the IRDP, therefore, are considered to be a step in the right direction. The outstanding question is whether there should be further reductions in IRDP. Before proceeding, a base should be established. Members of the Study Team expressed two opposing views on this issue. One group, comprising both private and public sector members of the team, held that grant programs such as IRDP are not needed since they serve to disrupt normal market forces, thereby resulting in a less efficient industrial structure. Another group of team members expressed the view that if a firm can fully utilize the provisions/allowances of the tax

system then there is no general need for further grants, though they may be justified in specific cases. This position presumes that the regional incentives in the tax system remain in place. However, this group recognizes that not all firms benefit fully from allowances in the tax system and therefore a grants program might be needed to pick up where the tax system is not very relevant, for example in lesser developed regions and for smaller firms. The question now becomes which types of activity should be assisted and by how much.

The Innovation element of IRDP subsumed a large part of the former Enterprise Development Program. Although significant integration of R&D granting programs occurred with the introduction of IRDP, there are two other major programs, IRAP and PILP in NRC, that are providing R&D related grants within the federal government. It should be possible to combine the Innovation element of IRDP with the NRC programs into one R&D direct incentives program, as is suggested in the IRAP and PILP notes. This combined program could be based in NRC. However, since commercial factors become more important than technical/technological factors as the size of a project increases, it would be preferable to place maximum limits on the amount of benefits that could be provided under this combined program. Not all provinces have capabilities to assess technical/technological factors as NRC does, factors that are critical to the success of R&D projects. Thus it would be preferable to exclude IRDP Innovation from any proposals to devolve IRDP to the provinces.

The Marketing element of IRDP focusses on marketing efforts domestically. Up until November 1984, benefits under this element went mainly to tourist operations. This group is no longer eligible for IRDP benefits. The Cooperative OverseMarket Development Program (COMDP) represents the other majorpart of this element. COMDP was assessed separately and as part of the total marketing assistance programming. Though it is being recommended that COMDP be continued, it is questionable whether the marketing element of IRDP should continue in its present form. Although not mentioned in context of the proposed devolution process, the marketing element could be included in sub-agreements with the provinceor could be eliminated without any serious impact. In the latter case, COMDP could be covered by special sub-agreements

To improve Canada's competitiveness as a location for establishing a business and to improve the productivity and

competitiveness of existing businesses, support for Establishment and Modernization/Expansion projects continue to be needed. Whenever a firm can benefit fully from the investment incentives provisions in the tax system, such benefits should generally be sufficient. Exceptions could apply for internationally footloose plants -- further incentives may be required to attract such plants to a Canadian location. These further incentives would normally have to be competitive with those offered in other developed countries. Also, since not all firms benefit fully from tax provisions, further incentives might be required to supplement the tax system. In sum, a grants program such as IRDP is needed to provide direct assistance for Establishment and Modernization/Expansion projects.

If supplementing the tax system to provide benefits to firms which do not benefit fully from tax provisions is the rationale for a grants program then one alternative could be change the tax system such that all firms can benefit more fully from tax provisions as opposed to having a supplementary discretionary program. Flow through of the benefits/deduction from less profitable to more profitable firms or to individuals could be one mechanism for achieving this objective. It could however be prohibitively expensive to implement such changes,as exemplified recently by the SRTC mechanism.

While IRDP's role may be to supplement the tax system there are no doubt many cases where firms receive grants and full benefits from the tax system for the same investment project. Some mechanism should be found for avoiding these situations unless the stacking of grants on top of full tax benefits is deliberate. One possibility would be to reduce the benefits, for example tax credits, by the amount of grants for the same investment project and to apply the value of grants well as remaining tax credits against the value of capital goods before calculation of depreciation allowances. Another condition could be that the value of grants and tax benefits should not exceed some percentage of the cost of the project, for example 50 per cent. Cases where this condition is not met could be referred for ministerial approval.

Devolution of small cases under IRDP to the provinces in order to foster rationalization of federal and provincial programs and to improve regional sensitivity of IRDP would have positive efficiency benefits. However overall program design would be important as the devolved program on the whole should still provide regionally differentiated benefits.

OPTIONS

As noted earlier, the Study Team was divided on the need for grant programs. If government considers that a program such as IRDP is needed then the study team recommends to the Task Force the following "package" for consideration:

i. all IRDP eligible projects, except innovation, involving crown contributions of some maximum level or less would be devolved to the provinces through respective sub-agreements. The maximum contribution level for the devolved part of IRDP would be negotiated with the provinces. The federal government's shares of these sub-agreements should in total be less than fiscal 1984-85 expenditures under IRDP for the devolved portion excluding expenditures for Tier I areas.

ii. IRDP's Innovation element would be merged with NRC's IRAP and PILP programs and this new combined program would have maximum contribution levels and a streamlined application/eligibility process similar to the one instituted in November 1984 for small IRDP cases. The maximum contribution levels for the combined program would be negotiated between DRIE and NRC.

iii. All other projects presently eligible for IRDP would be considered under a new Major Projects Program in DRIE.

Implementing this package will require multilateral negotiations with the provinces and amendments to the IRDP Act and Regulations. The total budget for the above "package" should not exceed current expectations for IRDP expenditures. In fact it should be possible to reduce these expenditures due to increased efficiencies arising from program consolidation.

In addition, the study team recommends to the Task Force that the government consider changing the treatment of grants in the corporate income tax system. The team proposes that grants offset any investment tax credits that may be available for the same investment project and that the value of the capital project for depreciation purposes be computed net of grants and net of any remaining tax credits. Following is an example as to how grants and investment tax credits could be considered together.

TREATMENT OF GRANTS AND INVESTMENT TAX CREDITS IN THE CORPORATE INCOME TAX SYSTEM

Assumptions

1.	Total cost of project	$1,000,000
2.	Investment tax credit (ITC)	
	(A) 7 per cent	
	(B) 20 per cent	
3.	Grant received	$ 100,000
4.	Effective corporate income tax rate (including provincial)	50 per cent

Present System

	ITC A (7 per cent)	ITC B (20 per cent)
Total cost	$1,000,000	$1,000,000
ITC	(70,000)	(200,000)
Grant (Note)	(100,000)	(100,000)
Capital cost for depreciation purposes	$ 830,000	$ 700,000

Note: Virtually all forms of governmental financial assistance are required to be deducted in computing the capital cost of assets, that capital cost being their depreciable base. One significant current exception is for amounts paid under an Appropriation Act "in respect of scientific research expenditures incurred for the purpose of advancing or sustaining the technological capability of Canadian manufacturing or other industry".

Observations

Ignoring the time value of money the net after-tax cost to the company, after giving effect to depreciation will be $415,000 where financial assistance of $170,000 is received, and $350,000 where assistance of $300,000 is received. If no financial assistance is received the net after-tax cost will be $500,000. A reference to "net after-tax cost" should not be construed as a suggestion that the availability of a depreciation claim represents a form of assistance (although accelerated depreciation does provide assistance in the form of a tax deferral). Expenses of doing business are deductible in computing net income, depreciation is one such expense.

ITC computed after deducting grant

	A	B
Total Cost	$1,000,000	$1,000,000
Grant	(100,000)	(100,000)
	900,000	900,000
ITC	(63,000)	(180,000)
Capital Cost for depreciation purposes	$837,000	$720,000

OBSERVATIONS

Again ignoring the time value of money, the net after-tax cost will be $418,500 where financial assistance of $163,000 is received and $360,000 where assistance of $280,000 is received.

Grant reduces capital cost and ITC

	A	B
Total cost	$1,000,000	$1,000,000
ITC	70,000	200,000
Less grant	(100,000)	(100,000)
ITC available	NIL	(100,000)
Grant	(100,000)	(100,000)
Capital cost for depreciation purposes	$ 900,000	$ 800,000

OBSERVATIONS

a. In the first case the net after-tax cost to the company will be $450,000 after giving effect to financial assistance of $100,000. In the second case, after assistance of $200,000, it will be $400,000.

b. The objective would be to eliminate any possibility of duplication between grants and ITC's.

c. A company provided with a grant because of not being able to immediately utilize an ITC (temporary non-taxable position) would not ultimately benefit by the ITC when it returns to a taxable position.

d. A company in a taxable position would be awarded a grant only in those situations where the project clearly warrants assistance greater than that provided by the ITC. In those situations the amount of the grant would represent the total amount of financial assistance (ignoring the effective reduction of assistance which results because the grant also reduces the capital cost of the related property).

The following table summarizes the impacts of the different treatments of ITC's and grants assuming a 20 per cent tax credit is applicable and the firm receives a $100,000 grant.

	Present Without Grant	System With Grant	ITC Computed After Deducting Grant	Grant Reduces Capital Cost and ITC
Total Cost of Project	$1,000.000	$1,000,000	$1,000,000	$1,000,000
Capital Cost for Depreciation Purposes	800,000	700,000	720,000	800,000
Net After Tax Cost	400,000	350,000	360,000	400,000

DEFENCE INDUSTRY PRODUCTIVITY PROGRAM (DIPP)
(Regional Industrial Expansion)

OBJECTIVES

The primary objective of DIPP is to enhance economic growth through promotion of defence-related exports. The secondary objectives are: to provide a defence industrial base and to develop and maintain a defence technological capability. DIPP provides Canadian firms with the supportive environment to allow them to remain reasonably competitive over the long run while operating in foreign markets against firms subsidized by their governments.

AUTHORITY

DIPP originated in 1959 when the Canada/United States Defence Production Sharing Agreement went into effect. The program was established basically in its present form in 1968.

ELIGIBILITY

Firms are eligible to be considered for DIPP, if:

a. the company is incorporated in Canada and has an advanced technological capability for defence and defence-related export sales;

b. the project is to be substantially undertaken in Canada;

c. the proposed project is within the applicant's capabilities;

d. the project is significant in terms of its impact on the company's present and future business (generally small projects from large firms are not eligible);

e. the project is directed toward defence or defence-related export markets.

Unincorporated applicants are eligible to be considered for research and development and market feasibility projects that support export sales, if they meet the criteria (b), (c) and (e) above.

DESCRIPTION

Four types of assistance are available under DIPP:

a. Research and Development - contributions toward the eligible costs of applied R&D for defence-related products;

b. Source Establishment - contributions to establishing a Canadian company as a qualified supplier of defence-related products;

c. Capital Assistance - contributions to modernization projects to acquire advanced production equipment intended to upgrade manufacturing capability for defence-related products;

d. Market Feasibility - contributions to marketing feasibility studies to establish the specifications and characteristics of defence-related products or to determine market sector characteristics.

In terms of dollars, the main elements of DIPP are the R&D and Source Establishment, and over time the program is shifting its emphasis toward R&D.

The following general assessment criteria apply to all types of assistance: incrementality, commercial viability, and significant economic benefits to Canada. Further, there must be evidence of export demand for the product and evidence that the applicant can meet the demand. The level of support available from foreign governments to the applicant or its competitors will be considered.

Authority to approve projects involving Crown support of less than $10 million and a Crown share of 50 per cent is exercised by the Minister. Crown contributions over 50 per cent or over $10 million require Treasury Board approval, and those $20 million and over require Cabinet approval.

BENEFICIARIES

The main beneficiaries of DIPP are large multinational corporations. The total 1984-85 DIPP budget is $168.9 million, so the $197.8 million of commitments shown below will probably be met in part through transfers from IRDP. The estimated regional breakdown of the beneficiaries for 1984-85 by element is as follows:

DIPP Element	**Commitment by Province in 1984-85 ($ millions)**						
	N.S.	**Que.**	**Ont.**	**Man.**	**Alta.**	**B.C.**	**Total**
Research & Development	0.1	66.4	22.7	0	1.2	4.8	95.2
Source Establishment	0.1	52.2	14.8	1.1	0	0.1	68.3
Capital Assistance	0.1	11.6	19.8	0.8	0.3	1.6	34.2
Marketing Feasibility Studies	0	0.1	0	0	0	0	0.1
TOTAL	0.3	130.3	57.3	1.9	1.5	6.5	197.8

Many DIPP projects are funded over several fiscal years. Almost all active projects have commenced since 1981, with most of them beginning in 1983 or 1984.

Many companies benefit from assistance under more than one element of DIPP. For DIPP as a whole, approximately 143 companies currently receive assistance; at least 38 companies receive support under more than one DIPP element. The funding by element is distributed as follows:

Element	**$ millions committed plus expended for active projects as of Jan. 1985**	**No. of Companies**	**No. of Projects**
R & D	1,658.8	11	94
Source Establishment	344.8	58	114
Capital Assistance	181.8	112	156

EXPENDITURES (millions of dollars)

	1982-83 (total commitments)	**1983-84 (new commitments)**
Research and Development	213.4	75.8
Capital Assistance	95.4	18.7
Source Establishment	116.3	49.7
Market Feasibility	0.3	-
Other (L30)	4.1	-
TOTAL DIPP	429.5	144.2

Person Years (estimated; DRIE only)	
R&D	24
Others	24
TOTAL DIPP	48

ASSESSMENT

Defence products are in a somewhat different position than most exportable products in that goods designated for national security (defence components) are not subject to GATT restrictions on government subsidies to producers. Given the very high level of assistance to defence industries by our main trading partners, the existence of our international defence agreements, the economic and political desirability of retaining a defence industry, and the technological spin-offs available from defence production, it is necessary to have DIPP-like assistance to maintain Canada's defence industry.

A program evaluation of DIPP completed in December, 1980, found that DIPP funding for all (incremental and non-incremental) assisted projects had a slightly positive net present value (NPV) from a societal perspective. On an incremental basis (counting only projects that would not have been undertaken in the absence of DIPP funding), DIPP yielded a negative NPV of $96.6 million ($1969). The shortfall could be regarded as the "cost" of achieving program objectives other than economic development. In this regard, it is a consideration that DIPP never had a formal incrementality criterion prior to 1980 and that the program has been formally redirected toward economic development and assistance for incremental projects only after the evaluation.

Despite the fact that DIPP is increasingly viewed by program management, auditors and evaluators as an economic development program (and, hence, a program that should encourage and assist incremental projects), DIPP makes more sense when it is evaluated in terms of its original objectives: as a program to support and subsidize the defence industry. For sound but non-economic reasons, Ministers have decided that Canada must retain a defence industry capability. Given that the defence industries of the U.S. and our main trading partners are heavily subsidized directly and indirectly, it follows that Canada's must be in order to survive economically. It must be emphasized that this is a non-economic argument; if economic development is the primary objective, it does not make sense to subsidize indefinitely an industry in which we do not have and cannot expect to have a comparative advantage.

At present, DIPP industrial assistance, government procurement in general, DND procurement and technology enhancement support are not integrated into a consistent and complementary defence policy.

It is clear that DIPP R&D asssistance overlaps with and is similar to many other types of government support for R&D. For example, both DIPP and IRDP heavily fund R&D in electronics: from 1 April 1984 to 24 December 1984 IRDP offered $29.9 million of R&D assistance to electronics firms while DIPP offered $15.3 million of R&D funding to electronics firms in the same time period. DIPP-IRDP overlaps are also apparent in manufacturing and transportation equipment R&D. Moreover, there is scope for overlap among R&D and the other elements of DIPP, and the same is true of IRDP and other R&D assistance programs.

DIPP has clearly contributed to the survival of the Canadian defence industry. If government wishes to maintain a defence industry in Canada, DIPP-like funding will be necessary. The challenge is to minimize support while ensuring that survival continues. This implies that two conditions must be maintained. The defence industry must be concentrated in sectors where it is most profitable and the support should be no more than necessary to ensure survival. Competition in export markets that tend to favour foreign producers and competition with foreign firms receiving greater subsidies is likely to ensure the production efficiency of Canadian defence firms.

Based on economic development criteria alone, the level of DIPP-like funding should probably be reduced.

OPTIONS

The study team is of the view that DIPP is viewed as a support program to a selected, and in some respects non-economic, industry rather than as a tool for general economic development, it should continue to be delivered as a discretionary granting program rather than as a tax expenditure or an automatic granting incentive. The export criterion should be dropped.

Given that much of the DIPP funding goes to relatively few firms and involves large contributions, firm-by-firm corporate memoranda of understanding concerning contributions is probably an attractive option for much of the assistance presently provided through DIPP. DIPP and IRDP are operated pretty much interchangeably for large cases now. Devolving small IRDP cases to the provincial governments and collapsing big-IRDP and DIPP into two windows of a Major Projects Fund would simply recognize the present de facto arrangement.

MACHINERY DUTY REMISSION PROGRAM
(Regional Industrial Expansion)

OBJECTIVES

To increase efficiency in Canadian industry by enabling users to acquire machinery, not capable of being produced in Canada, at the lowest possible cost while still affording Canadian machinery manufacturers tariff protection on the equipment they produce.

To comply with tariff reduction commitments made to trading partners under GATT.

AUTHORITY

Customs Tariff Act, DRIE Act, Financial Administration Act.

DESCRIPTION

The Machinery program was introduced in 1968 as part of the Kennedy Round Tariff Negotiations. Under the present GATT agreement, Canada is committed to ensuring that "the average incidence of the duties (after taking into account remission of duties) on all imports of those categories of goods that were classified under items 42700-1, 42701-1, 42761-1 and 42762-1 prior to January 1, 1980, from countries entitled to Most-Favoured-Nation (MFN) Tariff, shall not exceed 5.25 per cent ad valorem in any calendar year, subsequent to 1986". With the Machinery program, Canada is able to meet this commitment by remitting duties for items not produced in Canada while imposing duties, in the order of 10 per cent, on items that are or could be produced domestically. The MFN tariff rate for the largest class of machinery items covered by the program is 10.7 per cent presently; this rate is scheduled to be reduced to 9.2 per cent by 1987.

Items covered by the Machinery program include: metal and wood-working machinery, construction and materials handling equipment, pumps, hydraulics and special machinery for the pulp and paper, plastics and service industries. In addition, remissions for machinery, equipment and production tooling for the manufacture of automotive parts are considered under the program. Users can obtain information on which items are covered by the program from National Revenue, Customs and Excise (DNR) offices across Canada.

When applications for duty remission are received DNR determines whether the goods are classified under the Machinery program tariff items. Applications are then referred to the Machinery and Equipment Advisory Board (MEAB) for processing. MEAB, which normally meets on a weekly basis, is an interdepartmental board comprising officials from DRIE, Finance and DNR. MEAB advises the Minister of Regional Industrial Expansion as to eligibility of machinery for duty remission. Remission of duty is authorized by Governor- in-Council on the recommendation of the Minister. A minimum of 90 days is required to process an application. There is no duty remitted on the first $500 of value for duty on machinery eligible for remission, covered by any one application.

Another function of the Machinery program is to inform domestic manufacturers of import replacement opportunities and promote such activity.

Market statistics are presented in Appendix I.

BENEFICIARIES

There are two groups of beneficiaries: i) users of imported machinery who are allowed to import such equipment duty free provided they cannot be produced in Canada and, ii) machinery manufacturers, about 2,200 in number, who benefit from higher tariff protection.

Each year some 15,000 applications for duty remission are assessed. Each application can cover imports for up to 10 years. Recently capital investments on the whole have been weak and this has resulted in a lower than average level of applications - in 1983, 10,920 applications were assessed; remissions of duty were granted in 9,261 cases (85 per cent of applications).

Each year about 400,000 businesses and institutions stand to benefit from the provisions of the program. The geographic distribution of beneficiaries are as follows:

Region	Users Benefitting From Duty Free Status	Domestic Manufacturers
Atlantic	8%	2%
Quebec	24%	20%
Ontario	35%	52%
Prairies	19%	16%
British Columbia	14%	10%

According to MEAB's Report of Operations for 1983, the program was "instrumental in assisting 22 companies to increase the range of machinery products manufactured in Canada". Many of these new activities were the result of discussions with prospective manufacturers; in other cases the assistance under the program "enabled emerging manufacturers to attain a competitive position". Other operations "were made possible through phased improvements in Canadian content" and "there were also cases where complete manufacturing facilities were moved to Canada".

EXPENDITURES

Approximately $350 million in customs duty are remitted annually under the Machinery program. However, this amount, expected to increase annually by about 6 per cent in real terms, does not constitute a charge on the economic envelope. Since duty remissions are analagous to a general tariff reduction or a general sales tax reduction, they are not considered direct expenditures.

Thirty person years in the Machinery Branch of DRIE are assigned to administering the program.

OBSERVATIONS

The duty remission scheme maximizes the amount of tariff protection afforded domestic manufacturers while still allowing Canada to meet its international commitments to lower the overall rate of duty on relevant machinery.

Although Canada's commitment is to reduce the overall incidence of duty on MFN imports so as not to exceed 5.25 per cent after 1986, in fact, through the duty remission program, we have already surpassed this target. The incidence of duty was calculated to be 3.60 per cent in 1982, 3.43 per cent in 1983, and is estimated at 3.7 per cent for 1984. As imports eligible for duty remission increase, as a percentage of all imports, and as MFN rates of duty decline, the current practice of remitting duty in full will mean that Canada will be well within its commitment to lowering overall tariffs on machinery to 5.25 per cent after 1986.

On the one hand, DRIE does not consider remission of duties to be part of the package of federal assistance programs, such as IRDP and tax credits, and therefore does not consider duties remitted as expenditures. On the other hand, they do state that one of the objectives of the program is to lower costs for users of machinery. There appears to be a contradiction between these two positions.

The basic question is whether Canada's obligation is to:

1. ensure that the average incidence of duty is not greater than 5.25 per cent or
2. to remit duty in full when there are no domestic sources.

If the former, is the case then full remission of duty, which leads to average tariff rates being less than 5.25 per cent, could be considered a measure to lower costs to users of machinery. In this case also, duty remission should be classified as an assistance program and "excess" duty remitted should be classified as expenditures. If remitting duty in full when there are no domestic sources is our GATT obligation (2), then the program does not provide any assistance to users of duty-free machinery and does not, in itself, lower costs to users. If both (1) and (2) above represent our obligation, then these can still be achieved by imposing a higher rate of tariff on machinery items available from domestic sources. Looked at from a different perspective, the tariff on machinery items could be regarded solely as a protection measure, in which case, full duty remission on items not produced in Canada would be expected. If the tariff is considered a revenue generator then the average tariff target of 5.25 per cent becomes more relevant.

Technically, that is according to the letter of our international agreement, the duty remission scheme could be redesigned such that only partial duties are remitted on imported items not available from domestic sources. The ability to remit partial duties would support case I above. With partial duty remission, Canada would still be able to meet its 5.25 per cent rate commitment; for example, remitting only 80 per cent of duties instead of 100 per cent when eligible for duty remission, would increase the overall rate of duty to about 5 per cent. Remitting only 80 per cent of duties would lead to savings of about $70 million per year.

While the foregoing change seems technically feasible, the Study Team has been advised by officials that: "any attempt on Canada's part to provide less than full duty remission under the provisions of the Machinery Program will almost certainly be considered as a contravention of our GATT obligations". This position supports case (2) above.

The impact of the Machinery program in promoting import substitution is unclear as imports continue to account for a substantial share of the domestic market, except during the recession when the level of imported machinery fell sharply.

ASSESSMENT

If tariffs are considered primarily as revenue generators and the Machinery program is considered to be remitting more duty than is obligatory, then "excess" remittances should be considered in the context of other measures, principally tax measures, which also provide support for machinery acquisitions. In this context, these other measures already provide significant support to machinery users and therefore any additional support through the Machinery program is unwarranted.

The sheer volume of applications to be processed each year, around 15,000 presently, the reviews by DNR and their representation on the MEAB, and the minimum 90-day turnaround time on applications would suggest that program administration should be restructured. It might be possible to have quicker establishment of eligibility and this process could perhaps be administered by DNR.

Given the long term trend of increasing import penetration in the domestic market, increasing export activity by domestic producers and declining MFN tariff rates, it would seem that building the domestic industry to serve world markets, as opposed to focussing on import substitution, is the primary strategy for the machinery industry.

OPTIONS

The study team recommends to the Task Force that the government consider the following program modifications:

1. The position that the Machinery program is intended to reduce costs to users of machinery be removed from the program's objectives.

2. Promoting import substitution be removed from the objectives of the program as such activity should be part of the normal mandate of the Machinery Branch in DRIE.

3. The Machinery program to have as its sole objective ensuring Canada's commitment to its trading partners. In this regard, the program would be a "border measure" and ways to move the program's administration to DNR should be brought forward. DNR might be able to establish automatic eligibility for duty remissions thereby reducing the waiting period for remissions and reducing the incidence of duty payments in the first place. This could be done by transferring a portion of the program staff to DNR. The Minister of DRIE could also hand over responsibility for the program to the Minister of DNR. The MEAB would continue to exist but could review only contentious applications for duty remission.

4. Canada's obligation under GATT, as discussed earlier be made clear by the Departments of Finance and External Affairs. If the tariff is a revenue generator and the program is considered to be remitting more duties than is obligatory, then External Affairs, Finance and DRIE should be tasked with redesigning the duty remission scheme so that the average incidence of duties is closer to Canada's commitment to its trading partners.

Duty remissions, in the order of $360 million per year, should not be considered as expenditures. Depending on the obligation under GATT only up to about $70 million of duties remitted could be considered as "expenditures" much in the same way sales tax exemptions are considered "expenditures". Thus references to "expenditures" in the order of $360 million should be removed in future reports on the program.

MACHINERY DUTY REMISSION PROGRAM

Machinery Sector Statistics
($ Billion)

	1975	1980	1984*
Producer Shipments			
- Exports	1.7	3.8	5.1
- Domestic	3.3	5.9	6.4
TOTAL	5.0	9.7	11.5
Imports	5.5	10.9	11.1
Domestic Market	8.8	16.8	17.5
Import/Domestic Market	60%	65%	63%

Machinery Program
($ Billion)

	1975	1980	1984*
Total Imports	5.5	10.9	11.1
Imports Subject to Machinery Program	2.4	5.2	6.5
- Subject to duty	1.1 (46%)	1.9 (37%)	2.1 (32%)
- Subject to duty remission	1.3 (54%)	3.3 (63%)	4.4 (68%)
Avg. MFN Duty	6.8%	5.1%	3.7%
Posted MFN Rate	15.0%	14.3%	11.4%

* Estimate (DRIE)

WESTERN TRANSPORTATION INDUSTRIAL DEVELOPMENT PROGRAM

OBJECTIVE

To provide industrial development assistance to firms in the four Western provinces engaged in manufacturing, processing, food processing and related industries so as to exploit opportunities presented by the Western Transportation Initiative.

AUTHORITY

Appropriation Act.

DESCRIPTION

As part of the Western Transportation Initiative, linked to the Western Grain Transportation Act (WGTA), the federal government provided $75 million for assisting new industrial development projects in the four Western provinces. In particular, this fund was to be used for:

1. supporting industrial opportunities focussing on railway and resource supply and food processing ($59.5 million);
2. funding studies on long-term industrial development strategies and a specific study on signalling and communications products ($2.1 million);
3. operating a high profile campaign of supplier seminars and public awareness of the Initiative ($0.4 million);
4. funding the Protein, Oils and Starches (P.O.S.) Pilot Plant and Irrigation Demonstration Farm ($13.0 million); and
5. assisting in developing new capabilities for rail supply in Western Canada and to work with the Department of Transport in monitoring railways' obligations under Section 29(3) of the WGTA - that is, to source wherever possible from Canadian suppliers and more particularly from the region where the investment is being made.

The Western Transportation Industrial Development Program (WTIDP) provides greater financial assistance than would otherwise be provided by the Industrial and Regional Development Program (IRDP) in Western Canada. A comparison of assistance offered under the two programs is as follows:

Maximum Assistance as a Percentage of Project Cost
Type of Project

Tier Group	Innovation WTIDP	Innovation IRDP	Modernization/ Expansion WTIDP	Modernization/ Expansion IRDP	Establishment WTIDP	Establishment IRDP
1	60%	33.3%	25%	Inelig.	25%	Inelig.
2	75%	40%	35%	17.5%	35%	17.5%
3	75%	50%	50%	25%	50%	25%

Inelig. - ineligible
Note: Tier Group IV does not apply to WTIDP

BENEFICIARIES

Due to the prolonged period it took to pass the WGTA, WTIDP did not become operational until May 1, 1984. As a result, many projects which would have been eligible for WTIDP assistance received IRDP funding.

As of November 1984, 98 applications under WTIDP were received by DRIE. Of these, 23 offers have been issued, 16 of which were in Manitoba, 5 in Saskatchewan and one each in Alberta and British Columbia. Estimated Crown contributions for the 23 projects amounted to $3.7 million.

Of the 23 offers issued, 18 were for projects in IRDP Tier I areas, 10 of which were for plant establishment. (Establishment projects in Tier I areas are not eligible for IRDP assistance.)

EXPENDITURES (millions of dollars)

Of the $75 million allotted for WTIDP, $13 million have been transferred to External Affairs and Agriculture for demonstration projects and $10 million have been allocated to an Urban Bus subagreement. The remaining funds are scheduled as follows:

	83/84	84/85	85/86	86/87	87/88
Grants & Contributions	--	9.3	9.9	14.2	9.8
Operating, Expenses					
Salaries	--	0.2	0.2	0.2	0.2
O&M	--	0.1	0.5	0.4	0.1
TOTAL	--	0.3	0.7	0.6	0.3
Person Years	--	6	6	6	6

Due to the late start-up of WTIDP the $9.3 million for 1984-85 will not be fully disbursed. It is expected that unused amounts will be reprofiled to future years.

OBSERVATIONS

At the time WTIDP was being developed, it was envisioned that under the WGTA, subsidy payments would be made to farmers and there would have been substantial increases in freight rates for grain. As a result, new opportunities for processing industries in the West were expected. In addition, supply to rail and resource industries was expected to present further opportunities for Western firms as major upgrading of rail infrastructure in the West was to follow passage of the WGTA. WTIDP was, therefore, intended to assist Western industry to take full advantage of these industrial opportunities. After prolonged debate and changes to the draft Act, WGTA in the end stipulated that subsidy payments were to be made to the railways. This resulted in lower freight rate increases and, therefore, reduced opportunities for further processing activity in the West. Moreover, the railways have claimed that their Canadian sources of supply, located mainly in Central and Eastern Canada, were sufficient to meet their needs for expansion in the West. Thus, opportunities for rail supply have been lower than originally thought.

Prior to November 1984, WTIDP provided the same benefits to industry as IRDP with the exceptions that plant establishment projects in Tier I were eligible for WTIDP and ineligible for IRDP and maximum contributions for innovation projects under WTIDP were slightly higher than under IRDP. In effect, WTIDP overlapped with IRDP and was considered as serving to increase the amount of available industrial development assistance (budget) in the Western provinces. In November 1984, IRDP was changed so that modernization/expansion projects in Tier I areas, the major part of IRDP activity up until then, were made ineligible for assistance.

The take-up rate of WTIDP is expected to increase substantially as a result of IRDP changes. In effect, WTIDP will be used to substitute for IRDP assistance that has been removed for Tier I areas. This brings into question the inequitable treatment of projects in Tier I areas across Canada - why should industrial development projects in Tier I areas in the more "wealthy" provinces such as Alberta and Saskatchewan be eligible for assistance while similar projects in other Tier I areas, say in the Halifax area, are ineligible? On the other hand, it is argued that without WTIDP, industrial development assistance in the West would be largely limited to innovation assistance. It is argued that in the Prairie provinces in particular, industrial activity is heavily concentrated in the major cities, which are all Tier I areas, and it does not make commercial sense to have or to use programs to try and entice companies to establish or expand in Tier II and III areas. WTIDP is therefore considered, in this context, to be needed. However, this need is simply to compensate for what is perceived to be an inappropriate restructuring of IRDP in November 1984.

Of the 23 offers issued as of November 1984, only one was for a rail related project, 15 were for food processing projects and 7 were for other manufacturing projects. With the scaling down of IRDP, the last group can be expected to account for an increasing share of WTIDP benefits. The potential for rail supply projects is limited as the railway supply base is already well established and capable of handling increased orders.

The railways oppose two of the program's objectives. They are:

a. to monitor the railways' obligations to source in accordance with Secton 29(3) of the WGTA, and
b. to provide assistance to supplier development in Western Canada.

With regard to monitoring of railways' sourcing obligations, there is no legislative requirement for railways to provide WTIDP with any information and no penalty for non-compliance. The railways claim they are already providing sufficient information to Transport Canada. With regard to WTIDP assistance to Western suppliers, the railways view such assistance as unnecessary as companies requiring assistance are by definition unreliable and sourcing from them would result in higher costs in the long run. They also claim that their procurement already has 90 percent Canadian content.

In the area of long-term strategies for development, a $200,000 study on signalling and communications has been completed - results to be released soon - and the P.O.S. Pilot Plant and Irrigation Demonstration Farm projects are continuing but under the responsibilities of External Affairs and Agriculture respectively.

ASSESSMENT

The purposes for which WTIDP was designed have been greatly diminished in scope. Further processing opportunities have been reduced due to lower than expected increases in freight rates for grain and so have expectations for rail supply opportunities. WTIDP has, therefore, switched from its original purposes to being a replacement/substitute program for a scaled down IRDP.

It is likely hopeless to try and fulfill one objective of WTIDP, that is to monitor railways' obligations under Section 29(3) of the WGTA as WTIDP has no legislative mandate to do so.

WTIDP represents a commitment on the part of the federal government to assist Western industries to take full advantage of development opportunities which may arise from WGTA.

OPTIONS

The study team sees several options:

Industrial opportunities, for rail supply and further processing resulting from WGTA, will not materialize as originally envisaged. Thus WTIDP could be terminated on the basis that its original purposes are no longer applicable.

WTIDP could be kept in place but with a revised mandate. Under this alternative, monitoring of railways' obligations under Section 29(3) of WGTA should be removed from the program's activities. To reduce the incidence of WTIDP substituting for a scaled down IRDP, WTIDP assistance should be provided only to those activities directly associated with rail supply and to activities which represent further processing of the region's natural resources, for example, food processing. Assistance to other manufacturing activity not directly associated with further processing of resources or rail supply, for example,

activities such as printing, clothing manufacture etc., should be terminated under WTIDP. Assistance for eligible projects should continue to be made available in all areas, Tier I included, and long-term strategic studies of value should continue to be funded. Under this alternative, funding for WTIDP should be reduced to reflect the much reduced level of opportunities resulting from WGTA.

WTIDP could be replaced by Economic and Regional Development Agreement (ERDA) subagreements. This would remove what could be considered an inequity in that establishment: modernization/expansion projects in Tier I areas in the West continue to be funded while similar projects in other Tier I areas of the country are not generally eligible for assistance. The federal contributions under the ERDA's could amount to the uncommitted portion of the $75 million allotment or less.

SHIPBUILDING INDUSTRY ASSISTANCE PROGRAM
(Regional Industrial Expansion)

OBJECTIVE

To support the shipbuilding industry in Canada.

AUTHORITY

Appropriation Act.

DESCRIPTION

The Shipbuilding Industry Assistance Program (SIAP) was introduced in 1975 as the successor to a series of shipbuilding assistance programs that were introduced and terminated over the years dating back to World War II. Since 1961, assistance to the industry has been primarily in the form of production subsidies wherein payments to shipbuilders were some proportion of their vessel costs.

Initially SIAP provided a subsidy equivalent to 14 per cent of vessel cost and it was intended that this rate would decrease by 1 percentage point per year until 8 per cent was reached in 1981. Notwithstanding this plan, the subsidy rate was increased to 20 per cent in 1977 on a temporary basis and was extended on five occasions. The rate subsequently declined to 9 per cent, commencing June 30, 1980, and a cap of $75 million in annual program expenditures was placed for each of fiscal years 1981 through 1984.

Production subsidies represent one of two components of SIAP. The second component, the Performance Improvement Grant (PIG), provides a subsidy for investments in modern shipbuilding plant and equipment. Under the rules for PIG, a shipbuilder earns a credit equal to 3 per cent of approved vessel costs for vessels of a certain size - specified by regulation - and can build up a bank of credits. These credits can then be used to offset up to 50 per cent of approved productivity improvement investments.

Between fiscal years 1977 and 1984, SIAP assistance totalled $433 million and averaged between $70 and 75 million annually between fiscal years 1980 and 1984.

Cabinet has recently acted to terminate production subsidies on vessels scheduled for delivery after June 30, 1985.

BENEFICIARIES

The shipbuilding industry and its workers are the beneficiaries of SIAP. There are 21 shipyards each employing more than 100 workers and they represent 90 per cent of industry employment and 92 per cent of total production. There are some 50 smaller shipyards and repair shops. Of the 21 major yards, 8 are vertically integrated with shipping lines, for example Halco and CSL.

The regional distribution of employment in shipyards as reported by the industry association was as follows:

Employment at 23 Shipyards Reporting - 1983

Atlantic	2448	31%
Quebec	1782	23%
Ontario	1504	19%
British Columbia	2061	27%
	7795	100%

It is estimated that the whole industry employed 11,300 persons in 1983. By 1984 employment had dropped to about 9,600.

EXPENDITURES (millions of current dollars)

Taking into account the recent decision to terminate production subsidies, the revised forecast for program expenditures is as follows:

	83/84	84/85	85/86	86/87	87/88
Production Subsidies	66.0	25.0	15.0	10.0	---
PIG	11.3	20.0	20.0	20.0	20.0
TOTAL	77.3	45.0	35.0	30.0	20.0
Person Years	6	6	5	5	5

Disbursements on production subsidies in fiscal years 1986 and 1987 represent a lag in payments due to paperwork involved in filing and auditing of claims.

OBSERVATIONS

The recent Cabinet decision on SIAP dealt only with the production subsidy component. The PIG component was not dealt with and therefore is being maintained. DRIE expects to develop a revised shipbuilding policy later this year.

The industry benefits not only from SIAP but from a tariff structure that has recently been strengthened to provide for higher duties and an extension of Canada Customs jurisdiction to the offshore, that is to the 200 mile limit. With this extension, foreign built rigs operating in the offshore are liable for a 20 per cent rate of duty. Foreign built vessels have a tariff rate of 25 per cent.

In addition, the industry benefits from government procurement policy and from accelerated depreciation allowances for purchasers of Canadian built ships. Government procurement, mainly for defense, the Coast Guard and ferries, has become critical to the survival of the industry as it now represents $2 billion of shipyard work, and more government projects are in their planning stages.

Even with the former production subsidies, Canadian shipyards were uncompetitive internationally. Canadian prices are generally 25 per cent to 75 per cent higher than prices available for the same vessels from foreign builders. Thus government procurement, in the order of billions of dollars, provides substantial support, in the hundreds of millions of dollars, to the industry. Furthermore, shipbuilders can earn PIG credits on ships built for the government.

ASSESSMENT

The recent decision to terminate production subsidies reflects the realities of the non-competitiveness of Canadian shipyards internationally and the dwindling prospects for export markets and the domestic offshore market. The strengthened tariff structure should provide a high level of protection. At the same time, it increases the costs for shipping companies, thereby placing them at a disadvantage with their competitors.

PIG which pays up to 50 per cent of investment costs is generous when compared to normal grants to other industries. In addition, government through its procurement likely pays for almost all of the remaining (after PIG) investment costs incurred by some shipbuilders.

Since PIG payments are fairly automatic - companies earning credits are entitled to their grants on productivity investments - it does not help in rationalizing the industry, an objective that has wide support both in and outside of government. In fact, PIG payments could work against industry rationalization.

The decision to terminate SIAP production subsidies should not be reversed and the following alternatives for the PIG component could be considered.

OPTIONS

The study team recommends to the Task Force that the government consider terminating this program. This would remove the preferential treatment given to shipbuilders versus other industries, a treatment that is difficult to justify. To obtain investment grants, shipbuilders will still have recourse, under this alternative, to other grant programs such as IRDP. In this context certain shipyards, those engaged in government contracts, could be made eligible for DIPP.

Alternatively, the level of PIG subsidy could be reduced by about half. While still affording preferential treatment to the shipbuilding industry, for example in Tier I areas, the amount of disparity would be reduced. To ensure productivity improvements in the industry do continue, such improvements could be a requirement for obtaining government contracts. This alternative could lead to some rationalization in the industry, at least more than is presently induced. In effect, government procurement will to a large extent direct the rationalization process.

CANADIAN INDUSTRIAL RENEWAL BOARD

OBJECTIVES

To help revitalize the textile, clothing, footwear and tanning industries, to assist in the strengthening and diversification of the economic base of regions heavily dependent on these industries, and to help textile, clothing and footwear workers adjust to changing conditions in these industries.

AUTHORITY

Appropriation Act.

DESCRIPTION

The Canadian Industrial Renewal Board (CIRB) operates three programs corresponding to the objectives listed above. They are: the Sector Firms Program (SFP), the Business and Industrial Development Program (BIDP), and the Labour Adjustment Program (LAP). CIRB is administered by a Board of Directors made up for the most part of representatives from the private sector.

SFP is intended to help textile, clothing and footwear (TCF) firms restructure and modernize in order to improve their competitiveness. Maximum contributions of 50 per cent of capital costs and of 75 per cent of consulting and innovation costs are available. Contributions under SFP have averaged 24 per cent of project costs. Assistance is targeted towards strong companies with potential to improve their competitive position.

BIDP channels assistance to companies that are located or wish to locate in Special Areas (of which there are seven: 2 in Eastern Ontario and 5 in Quebec) for the realization of projects which contribute to the program objective. The program has a two-pronged strategy: (i) an analysis of the operations and capabilities of local firms leading to the formulation of development plans; and (ii) a concerted attempt to attract companies in sectors identified in development plans which are drawn-up with significant input from local representatives. Maximum contributions on project costs are the same as for SFP. The average contribution is about 30 per cent of project costs.

In addition to regular CEIC adjustment programs, LAP provides access to wage subsidies, enhanced mobility assistance and training allowances, and special job creation assistance. This component of CIRB has been reviewed and assessed by the study team on Job Creation and Training Programs and, therefore, is not reviewed in this note except for repeating the alternative preferred by the study team.

BENEFICIARIES

The textile, clothing and footwear companies assisted by CIRB, and their employees, have been the beneficiaries of the program. The regional distribution of commitments made as of October 1984 is as follows for each program: (millions of current dollars)

	SFP	BIDP
Quebec	103	63
Ontario	64	7
Other Provinces	17	-
	184	70

Under SFP, 212 firms have received offers from CIRB; their projects will involve investments of close to $780 million. The textile sector accounts for 58 per cent of SFP contributions, clothing for 32 per cent and footwear/tanning for 10 per cent. Under BIDP, 240 firms have received offers of assistance and they are expected to generate investments of about $231 million. These capital projects are expected to create 3,324 new jobs and safeguard 546 others in the Special Areas.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Contributions	37.0	62.9	83.4	62.2	35.0
Operating					
Salaries	1.9	2.1	2.1	-	-
Other	0.9	0.9	0.8	-	-
TOTAL	2.8	3.0	2.9	-	-
Person Years	55	55	55	-	-

OBSERVATIONS

In the Spring of 1984, $105.7 million were added to the SFP budget due to a higher than expected level of participation in the program by sector firms. To fund this increase, $13.8 million was taken from BIDP's budget, $3.2 million from CIRB's operating budget, and $88.7 million came from other government sources.

CIRB was originally expected to place equal emphasis on supporting sector firms and on diversifying the economic base of sector dependent communities. Total funding was supposed to be equally split between these two activities. Due to the generally difficult problem in creating new manufacturing activities in less developed regions, BIDP projects will in fact only account for 24 per cent of the total funding.

CIRB recognizes that its policy of selecting and backing strong companies will lead to the demise of weaker companies. This is seen as necessary to rationale TCF industries but in turn has led to complaints by companies forced out of business.

CIRB's original sunset date was extended in 1984 with receipt of additional funding for SFP. It is now scheduled to disband by March 1986. CIRB has about $30 million uncommitted remaining in its SFP budget and it estimates that this amount would be sufficient to process applications until October 1985. There are no remaining uncommitted funds in the BIDP budget. CIRB will soon be seeking an extra $20 million funding for BIDP to allow for processing of applications until October 1985.

The textile, clothing, and footwear industries employ around 180,000 workers in Canada. Generally, Canadian companies cannot compete with offshore sources, mainly low-wage countries. CIRB is one of four major elements of Canada's policy for the TCF industries. The other elements are: tariffs, quotas, and sales tax exemptions. Tariffs and quotas, especially the latter, provide a high degree of protection for the domestic industry but they induce high economic costs. It should be noted, however, that Canada is not alone in having such protection measures, as the US and European countries also have instituted systems of tariffs

and quotas to protect their domestic companies. The creation of CIRB in 1981 introduced a new element to the TCF policy. It was hoped that after a period of five years ending March 31, 1986, CIRB would have been successful in modernizing the TCF industries and diversifying TCF dependent communities. The aim was to reduce reliance on special measures of border protection, that is to reduce and eventually eliminate these measures, especially quotas.

ASSESSMENT

As all CIRB Special Areas are classified Tier II or III under IRDP, BIDP activity overlaps fully with IRDP.

In its contracts with recipient firms, CIRB has introduced a condition whereby recipients undertake to leave at least 75 per cent of their after tax profits in their companies during a control period lasting up to 5 years. This condition should be extended to and be a key feature of other grant programs, to be applied as the situation warrants.

After some $300 million of CIRB funding, it is still not expected that TCF firms will be able to compete with imports without special border measures; sector dependent communities have only marginally reduced their reliance on TCF industries. Even after receiving CIRB funding one noteable firm was still forced to go out of business. In effect, consumers who have been supporting these industries are no better off today since, the TCF industries' reliance on costly border measures, quotas especially, is just as great today as at the start of the CIRB program in 1981.

OPTIONS

The study team recommends to the Task Force that the government consider curtailing CIRB operations immediately so that no further commitments are made. All pending applications could be handed over to DRIE for consideration under IRDP. DRIE could apply normal IRDP eligibility criteria in considering these applications and fund any new projects from its existing budget. Under this alternative, CIRB's administrative responsibilities/files would be transferred as quickly as possible to respective DRIE regional offices. The spending levels for CIRB would be reduced by the $30 million in uncommitted funds in the SFP.

Alternatively, CIRB's mandate could be allowed to continue until its planned closure in March 1986 but no new funding for CIRB would be approved. CIRB could be directed to use $10-15 million of its uncommitted SFP funds for continuing its BIDP.

In both of the foregoing alternatives, CIRB's labour adjustment activity should be consolidated with CEIC administered program as proposed by the Study Team on Job Creation and Training.

The whole policy toward the textile and clothing sectors is due to be reviewed soon as international agreements for trade in these goods expire in 1986. The system of quotas for footwear imports is also set for review soon by the Anti Dumping Tribunal. If there is to be another sector policy, the industry should be required to start adjusting to more competition from imports; that is reduction in quotas should commence.

INDUSTRY SECTOR BRANCHES
(Regional Industrial Expansion)

OBJECTIVE

To promote regionally balanced development of internationally competitive and adaptable industrial enterprises in Canada.

AUTHORITY

The Department of Regional Industrial Expansion Act, Appropriations Act.

DESCRIPTION

In the Department of Regional Industrial Expansion (DRIE) Industry Sector Branches are classified into three groups: Capital and Industrial Goods; Consumer Goods, Services and Resource Processing; and Tourism. The major activities of the branches are:

1. building a knowledge base of their respective industries including domestic and international factors which affect these industries, intimate knowledge of the operations of major firms, emerging technologies and major capital projects and market research;

2. developing government policies for each industrial sector;

3. pursuing initiatives to strengthen the capabilities of firms in product and process development, productivity improvement and to attract foreign investment to meet identifiable needs;

4. pursuing initiatives to develop domestic and export markets for Canadian firms; and

5. delivering sector specific programs, for example, shipbuilding, assisting in the delivery of departmental and other government programs and being responsible for defining, negotiating and monitoring the government's involvement in major industrial projects.

BENEFICIARIES

The principal beneficiaries of Industry Sector Branch activities are manufacturing, processing, service and tourism industries. These industries are located in and are important to all regions of the country.

EXPENDITURES

There are no separate reference levels for Industry Sector Branches. In total, there are 823 person years budgeted for these branches. Using an approximate cost per person year of $50,000, total operating cost for these branches would be about $40 million annually.

OBSERVATIONS

Prior to the amalgamation of the former Departments of Regional Economic Expansion and Industry, Trade and Commerce, Industry Sector Branches were more involved in liaison with trade commissioners and in delivering their own programs than at present. Close contact with trade commissioners increased the effectiveness of sector branches in promoting exports of Canadian goods. In delivering their own programs, sector branches were in closer contact with industry and were thereby made more knowledgeable of current factors affecting industry. With the trade commissioner service now resident in External Affairs and with DRIE regional offices delivering the bulk of the Department's programs, sector branches have become increasingly isolated. Their principal activities have therefore shifted to advisory and resource functions and away from serving industry.

ASSESSMENT

The body of knowledge and industry insights resident in the sector branches are not insignificant and therefore their functions should be maintained. More use of their expertise by both the public and private sector should be encouraged.

The number of person years allocated to Industry Sector Branches seems large in light of their diminished responsibilities. Further, in recent years Ministers have been making greater use of the private sector consultation

process to provide major inputs to sectoral policy making and decisions. This calls into question the need to maintain a large group of resident experts.

No method for determining the efficiency of the sector branches is presently available.

OPTIONS

The study team recommends to the Task Force that government consider conducting a review of the operations of Industry Sector Branches in order to determine whether reductions in their human resource allocations can be achieved.

RULES OF THE MARKET PLACE

The Department of Consumer and Corporate Affairs Rules and Penalties: An Overview

OBJECTIVE

1. To promote equity, efficiency, openness and competition in Canada's market system;
2. To promote and protect the interests of consumers; and
3. To fulfill the functions of the Registrar General of Canada.

AUTHORITY

The Department of Consumer and Corporate Affairs Act gives the Department responsibility, in whole or in part, for more than 70 Acts of Parliament.

DESCRIPTION

Consumer and Corporate Affairs is relatively small when measured by expenditures but overwhelmingly pervasive in its penetration into the lives of people and functioning of business in Canada. By virtue of the many Acts of Parliament, and the regulations pursuant to them, for which it is responsible, the department's programs have enormous potential to smooth or disrupt the Canadian marketplace. If the system is in balance, CCAC, like a child, should be seen and not heard.

OBSERVATIONS

The business study team is only reviewing CCAC programs accounting for about 10 per cent of the department's budget. (See CCA-9, 10, 11, 13, 14). These include Intellectual Property, incorporations and bankruptcy. Other programs, such as inspection and competition policy, will be dealt with by the regulatory team. Much of what follows applies equally well to those programs.

In creating the Department in 1967, the Government brought together a myriad of programs affecting the marketplace and joined together the law, the economy and the public interest. The logic that led to the separation of the rule-makers from the proponents of the various market sectors remains valid.

Many of CCAC's programs, including those under review, are poorly understood and greatly underrated. They tend to be arcane (bankruptcy), abstruse (copyright) and even distasteful in the public mind (bankruptcy). They are legalistic and technical and of interest primarily to those with specialized knowledge or vested interest.

The legal marketplace framework administered by CCA can be described variously as out of date, archaic or even quaint. Numerous attempts made over the years to modernize the laws have, with the exception of the Canada Business Corporations Act, been largely unsuccessful. Thus, Canada operates with a Patent Act of 1935, a Bankruptcy Act only slightly amended since 1949 and a 1924 Copyright Act which could not anticipate reproduction by photocopiers, cassette tapedecks, video recorders or personal computers.

ASSESSMENT

The reviews of CCAC programs suggest specific measures to streamline program administration. Overall, however, much more can be done to improve the business environment by launching a program of phased legislative modernization. Business groups have at times described the department as inefficient, over-interventionist and meddlesome.

In the past, some attempts to revise the legislation failed because they tried to do too much at once. Consultation floundered and bills died on the order paper.

OPTIONS

The attached annexes outline a two-stage program of legislative reform. The first stage would see minor, non-controversial or housekeeping amendments put forward. They could be tabled and passed rather quickly. In this category are items to streamline operations or to remove irritants identified by the business community. Priorities for revision are the Canada Business Corporations Act, the Patent Act and the Trade Marks Act.

The second stage would deal with amendments of substance to each Act. Timing will vary. In some cases, consultation is well underway and could be concluded promptly; in others, change has been delayed for so long that the issues are no longer relevant or reflective of today's situation. Further, some proposals as currently

formulated may not be in the best interests of the economy as a whole and should be subjected to serious reconsideration and debate. These would need to be developed over a period of years. Priorities here are Bankruptcy, Patents (compulsory licencing of pharmaceuticals), Copyright and Trade Marks.

Priorities can be adjusted in accordance with the Government's preference. Nonetheless, it appears opportune to begin to get the rules of the marketplace in order.

CCA HOUSEKEEPING AMENDMENTS

	CANADA BUSINESS CORPORATIONS ACT	BANKRUPTCY ACT	PATENT ACT	COPYRIGHT ACT	TRADE MARK ACT	INDUSTRIAL DESIGN ACT
Housekeeping	Yes - Amendments to streamline filing procedures and bring about congruence between English & French versions of the Act	Yes - Two amendments designed to simplify mailing procedures and to clarify the definition of realizable assets	*Yes - Amendments to permit accession to the PCT and to introduce renewal fees.	No separate amendments	Yes - Amendments can be implemented to streamline the licensing and registration of trade marks	Yes - allow photographs to be used for description of the design
i) Impact on small and medium business?	Yes - (Reduced filing requirements)	Nil	Yes		Yes - (Reduced filing requirements)	Yes - (Reduced filing requirements)
ii) Impact on big business?	Yes - (New compliance requirements)	Nil	Yes		Yes - (Reduced filing requirements)	Yes - (Reduced filing requirements)
iii) Better service and efficiency?	Yes - (Reduced staff requirements)	Yes - (Reduced administrative costs)	Yes		Yes - (Reduced staff and filing requirements)	Yes - (Reduced staff and filing requirements)
iv) International implications?	Yes - (Increased filing requirements for foreign firms)	Nil	Yes		Positive - (Benefits accrue to nationals and foreigners)	Positive - (Benefits accrue to nationals and foreigners)
Comments	The best potential for a positive contribution to the objectives of removing constraints to growth and improving productivity are in the CBCA, the Patent and the Trade Mark amendments.					

*The amendments should improve office efficiency and service to the public. However, depending on the size and method of implementation of proposed renewal fees, objections could be raised. A reduction in the fees for small entities should blunt criticism.

CCA SUBSTANTIVE AMENDMENTS

	CANADA BUSINESS CORPORATIONS ACT	BANKRUPTCY ACT	PATENT ACT		COPYRIGHT ACT	TRADE MARK ACT	INDUSTRIAL DESIGN ACT
			a	b			
Substantive	Yes - Amendments to Take-over Bids and Investigations (Parts XVI and XVIII of CBCA)	Yes - Revision of the Bankruptcy Act	Yes - possible amendments to S.41(4) (compulsory licencing of pharmaceuticals) post Eastman Report	*Yes - proposed general amendments to modernize the Act	**Redefine the rights of copyright owners in relation to new technological uses of their works	Yes - general amendments to the Trade Mark Act including accession, to the Nice Agreement	No amendments
i) Impact on small and medium business?	Yes - (Provides uniformity with provincial legislation)	Yes - (More flexibility to avoid bankruptcy)	Yes - (Possible negative impact on Canadian firms)	Yes	Yes	Yes	
ii) Impact on big business?	Yes - (Provides uniformity with provincial legislation)	Yes - (More flexibility to avoid bankruptcy)	Yes - (Probable benefit to multinational firms)	Yes	Yes	Yes	
iii) Better service & efficiency?	Yes - (Reduced transaction costs & simplified filing)	Yes - (Greater disclosure of information)	No - (Probable higher drug prices than under present regime)	Yes	Nil	Yes	
iv) International implications?	Nil	Nil	Yes - [Exports, (-); International Treaties (+), Relations with home countries of multinational pharmaceutical firms (+)].	Yes	Yes	Yes	

Comments

** A) The Act is antiquated, creating uncertainties and inequities among the affected industries (book publishing, cable T.V., computer software, etc.). Some potential changes could result in higher costs to Canadian companies e.g. firms that rent videos and records companies that make recordings under the current compulsory licence.

B) Up to 90 percent of Canadian patents and copyrights and trade marks are held by foreigners. Thus improvements in the legislation will be beneficial to these foreign interests.

CORPORATIONS BRANCH
(Consumer and Corporate Affairs)

OBJECTIVES

1. To regulate the creation and existence of federal corporations.
2. To maintain order and fairness in the corporate environment.

AUTHORITY

Canada Business Corporations Act and others.

DESCRIPTION

Excepting financial intermediaries, all federal business corporations, including investment and small loans companies, are incorporated under the Canada Business Corporations Act. There are an estimated 150 thousand Canadian corporations.

In addition to providing legal instruments of incorporation, the Branch has a monitoring/regulatory role in ensuring compliance with the Act and regulations in such matters as annual filing of financial statements and insider trading activities. The Branch also deals with relaxation of public disclosure requirements where market conditions dictate and investigates complaints of abuse of minority shareholders, unusual market activity or malfeasance.

BENEFICIARIES

The various Acts of Parliament administered by Corporations Branch provide the basic infrastructure for the establishment and conduct of a business, nationally, in Canada. Benefits are derived by persons establishing businesses by investors in those businesses through safeguards and disclosure requirements and by customers of the businesses through marketplace stability.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Salaries & Wages	1.6	1.6	1.7	1.7	1.7
Other O&M	0.5	0.7	0.4	0.4	0.4
Capital**					
TOTAL	2.1	2.3	2.1	2.1	2.1
Revenue***	7.8	8.3	9.4	9.4	9.4
Person Years	63	56	59	59	59

* Excludes employee benefits.
** Negligible.
*** Assumes fee increases by Order-in-Council in effect in 85/86.

OBSERVATIONS

In recent years, the Corporations Branch has moved to increase productivity through automation and other efficiency measures and privatization of the corporate name search function. The latter move has spawned an industry consisting of some 70 search houses with estimated gross annual revenues of $20 million.

The federal incorporation fee is being doubled to $500.00. This will be well above provincial fees and should ensure that only corporations with national objectives incorporate federally.

ASSESSMENT

There appears to be little of a routine, administrative nature to be concerned about here. At issue, however, is the introduction of both housekeeping and substantive amendments to the legislation.

OPTIONS

The study team recommends to the Task Force that government consider phased introduction of legislative amendments as outlined in the CCA legislative overview report.

BANKRUPTCY
(Consumer and Corporate Affairs)

OBJECTIVES

1. To restore to more productive use resources which have been locked up in an insolvent business;

2. To ensure the fair and equitable treatment of debtors and creditors; and

3. To prevent fraud in insolvent estate administration.

AUTHORITY

The Bankruptcy Act.

DESCRIPTION

The Bankruptcy Branch, under the supervision of the Superintendent of Bankruptcy, oversees the administration of bankruptcy in Canada. Bankruptcy and insolvency are constitutionally designated federal responsibilities. By will of the Government, however, certain functions may be devolved to the provinces, as has been done with the orderly payment of debt provisions of the current Act. The Branch regulates the insolvency process, licenses and supervises bankruptcy trustees and conducts investigations to detect offences under the Bankruptcy Act or the Criminal Code.

As of March, 1984, there were 575 licensed individuals and 100 licensed corporations under supervision. During the 1970s and early 1980s, bankruptcies in Canada increased, peaking at 43,000 per annum at the height of the recession in 1982/83. The estimate for 1984/85 is 33,000.

BENEFICIARIES

Debtors, creditors and trustees all benefit to some extent.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Salaries and Wages*	4.4	4.6	5.1	5.1	5.1
Other O & M	0.9	1.2	1.4	1.3	1.3
Capital**					
TOTAL	5.3	5.8	6.5	6.4	6.4
Revenue***	1.8	1.4	2.4	2.4	2.4
Person Years	146	143	143	143	143

* Excludes employee benefits
** Negligible capital
*** Assumes fee increases by Order in Council in effect in 85/86.

OBSERVATIONS

A review of bankruptcy leads rather directly to consideration of the human failings of misjudgement, misfortune and greed. Bankruptcy is by nature a bad business. A bankruptcy system can only strive for damage minimization by rehabilitating wasted resources to the benefit of both debtors and creditors.

Insolvency and bankruptcy seem to incite thoughts of abuse. For example, debtors may attempt to hide assets, creditors to draw off payment in advance of a pending bankruptcy, and trustees and receivers to abuse their fiduciary responsibilities. During the period of increasing bankruptcies in the early 1980's, the number of staff in the Branch declined. This has raised some concern that the integrity of the bankruptcy system may have been undermined because of reduced supervision of trustees.

The Branch derives revenue to offset the cost of operation in part from trustee licensing fees but largely from the imposition of a levy on distribution of assets in the estate. It is proposed that these fees be increased more than two-fold in the near future. This will recover about one third of operating costs.

ASSESSMENT

There is no concrete evidence that the bankruptcy system is in serious jeopardy. Thus, there is no case for increasing resources for, say, trustee audits. Indeed,

having gotten over the peak in caseload, the Branch could be expected to devote more attention to system integrity through reallocation of resources.

OPTIONS

The study team recommends to the Task Force that the government consider introducing amendments to the Bankruptcy Act as outlined in the CCA legislative overview report and initiate discussion/consultation on controversial proposals.

Under the current fee proposals, the annual trustee licence renewal fee will rise to $200 from $50. Consideration should be given to an even greater increase. Larger trustees who value their professional reputations would not be greatly affected.

COPYRIGHT AND INDUSTRIAL DESIGN
(Consumer and Corporate Affairs)

OBJECTIVE

To grant equitable and exclusive intellectual property rights.

AUTHORITY

The Copyright Act and Industrial Design Act.

DESCRIPTION

The Office is responsible for the registration of copyrights and industrial designs, as provided in legislation. Approximately 8,400 copyright certificates and 1,560 industrial design applications are handled each year.

Copyright and industrial design legislation is intended to provide protection for intellectual property rights much as common law does for property. Copyright is automatic upon creation of the work and remains in force during the life of the creator and for 50 years thereafter. Industrial design protection is extended initially for five years and is renewable for a further five year term.

BENEFICIARIES

Creators of original works (authors, sculptors, composers) are the beneficiaries of copyright protection. Inventors, licensed users and businesses benefit from industrial design protection.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Salaries and Wages*	0.4	0.4	0.4	0.4	0.4
Other O & M	0.1	0.1	0.1	0.1	0.1
Capital**					
TOTAL	0.5	0.5	0.5	0.5	0.5
Revenue	0.7	0.6	0.7	0.7	0.7
Person Years	15	15	14	14	14

* Excludes employee benefits.
** Negligible capital.

OBSERVATIONS

By recent agreement, the Minister of Communications has assumed primary responsibility for Copyright legislation, whereas the Minister of Consumer and Corporate Affairs remains responsible for the administration of the Act. A White Paper on Copyright reform has been tabled and will be the subject of study by a Committee of the House.

There are no major issues in Industrial Design.

ASSESSMENT

While amendment of the Copyright Act is controversial, and likely time-consuming, a course has been struck and the process of study and consultation is underway.

The White Paper includes a proposal to eliminate the Copyright Registration function. This should be supported. Copyright is conferred automatically upon creation. Registration serves no legal function and may only engender false confidence on the part of creators who are issued a registration certificate.

OPTIONS

The study team notes that there would be benefits in terms of organizational rationalization and career progression for employees if Industrial Design and Trade Marks administration were merged.

PATENTS OFFICE
(Consumer and Corporate Affairs)

OBJECTIVES

1. To encourage invention in Canada and abroad by granting exclusive intellectual property rights.

2. To facilitate technological information dissemination to potential Canadian users.

AUTHORITY

The Patent Act

DESCRIPTION

The Patent Office is responsible for all aspects of the Act -- examination of applications, granting of rights, recording of patents issued and maintenance of search files of Canadian and foreign patents in force. There are some 20 million patents on file. Around 26 thousand applications are filed and 22 thousand patents issued each year, 95 per cent to foreigners. In turn, other governments may grant patents to Canadians.

A patent can be viewed as a contract between the inventor and the state. In return for granting a limited monopoly on the production and sale of a product or process for a specified period of time, commercially valuable, technical information is made publicly available. The term of a Canadian patent is 17 years from the time it is issued.

BENEFICIARIES

Inventors and their employers are the main beneficiaries. To the extent that patent information is searched out and used, entrepreneurs and other inventors may benefit.

Expenditures (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Salaries & Wages*	8.6	9.0	9.4	9.4	9.4
Other O&M	0.8	1.3	1.6	1.5	1.5
Capital**					
TOTAL	9.4	10.3	11.0	10.9	10.9
Revenue	14.0	13.0	12.4	12.4	12.4
Person Years	265	264	263	264	264

* Excludes employee benefits
** Approximately $30 thousand per year.

OBSERVATIONS

Central to the discussion is the fact that there is a great deal of duplication around the world in examining patents. An invention normally gives rise to patent applications in several countries -- all of which may carry out an examination. This has led to a world-wide trend away from relying on national patent offices and toward patent unions. For example, the European Patent Office is increasingly absorbing the business of individual country offices. This trend indicates increasing willingness to accept foreign examinations. Indeed, some countries have always relied extensively or exclusively on foreign examinations.

Based on staffing levels and throughput, a Canadian patent examiner is able to devote about one half day to determining whether an invention is unique in the world. In effect, little original work is done -- the examiner relies on American examination results which must be appended to the application under a Patent regulation. Eighty percent of Canadian applications have an American counterpart. The remaining 20 per cent are largely applications previously accepted in other jurisdictions. Fewer than 500 patents per year are filed solely in Canada. It takes 30 months to examine and grant a patent.

The President of the Treasury Board has announced major, immediate increases in revenues from Consumer and Corporate Affairs programs. Some $30 million would derive from patents, largely from patent renewal fees which can only be introduced if and when Parliament amends the Patent

Act. Even assuming prompt legislative action to introduce renewal fees, significant revenue would not be generated until the early 1990's. In the absence of legislative amendments, the revenue must derive from increases in existing fees which can be introduced by Order in Council. To achieve the announced revenue goal requires a four to five fold increase before allowing for the inevitable drop in applications which will result.

The Department is developing proposals for legislative amendments to bring the Patent Act more in line with international practice and to establish a mandate to promote aggressively the use of patent information. Incremental costs of the information program are $9 million and 115 person years, over three years.

ASSESSMENT

For the Patent Office there is no question of federal-provincial overlap. "Patents of Invention and Discovery" are assigned to the Parliament of Canada under the Constitution Act. Rather, the question is one of international duplication.

Existing legislation gives the Patent Office sufficient latitude to publicize the fact it has on file vast amounts of patent information. No new mandate, or new resources, should be required. The proposals to bring the Patent Act more in line with international practice are a move in the right direction if continuation of the examination role of the Office is contemplated. There are, however, simple legislative changes which would lead to substantial immediate reductions in the cost of operating the Canadian patent system.

OPTIONS

The study team recommends to the Task Force that the government consider introducing the following measures:

- Accede to the Patent Co-operation Treaty and Cease Examinations: The obvious and effective way to reduce Patent Office expenditures is to accede to the Patent Co-operation Treaty. This would enable Canada to accept foreign examination results. The applicant would present his foreign patent to be recorded and stamped as a Canadian patent. Examination of the few

patents which are first filed in Canada would be contracted out to any one of the international searching authorities.

Minor amendments to the Patents Act would be required. They could be introduced together with the amendments necessary to allow for the introduction of renewal fees.

Although considerable economies have been realized in recent years, further savings would result. Most affected would be the patent examiners -- some 150 employees of which about 35 per cent are to retire in the next five years. There would be commensurate reductions in support staff and operating expenditures, but a revamped Patent Office could likely operate with about 50 employees and annual expenditures of no more than $3 million.

- Link patents with the other existing technology banks at the Canadian Institute for Scientific and Technical Information (CISTI) of the National Research Council. To be avoided is a massive duplication of the patent automation project being undertaken in the U.S. One model of co-operation exists in Canada/U.S. sharing of medical research information. In this instance, CISTI has arranged to access directly U.S. databases. The cost of such a patent system is not known but could easily be estimated by CISTI.

  Canadian patent agents will be affected by loss of business in filing applications. There will, however, continue to be litigation work and there is potential for a larger role in seeking out licencing arrangements on behalf of inventors.

  The impact on revenue is uncertain. A new Patent Corporation Treaty fee structure would be required. Participation in the PCT may well induce more applications in Canada. This together with revenue to be generated by the new fee structure recently announced and eventually from renewal fees should mean greater revenue in the future.

  Accede to the Patent Co-operation Treaty but retain domestic examination for sole filing in Canada. This is a slightly less extreme alternative which would see the Patent Office retain a core capacity to examine

applications which have not previously been examined in another jurisdiction rather than contracting out to an international searching authority. A slightly larger staff would be retained but, in other respects, the impacts should be the same.

TRADE MARKS
(Consumer and Corporate Affairs)

OBJECTIVE

To grant equitable and exclusive intellectual property rights.

AUTHORITY

The Trade Marks Act.

DESCRIPTION

The Trade Mark Office receives and processes applications for registration of "a word, symbol or picture or a combination of these used to distinguish the goods and services of a person or organization" from those of others in the marketplace. Approximately 16,500 trade mark and 16,700 registered user applications are received annually. The initial term of a Trade Mark is 15 years, although it may be renewed every 15 years, indefinitely.

BENEFICIARIES

Business is the main beneficiary through the creation and protection of good will. Consumers receive assurance of the origins of products or services.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Salaries and Wages*	2.4	2.3	2.6	2.6	2.6
Other O&M	0.3	0.9	0.4	0.4	0.4
Capital**					
TOTAL	2.7	3.2	3.0	3.0	3.0
Revenue***	4.5	4.4	12.4	12.4	12.4
Person Years	99	82	84	84	84

* Excludes employee benefits.
** Approximately $30 thousand per year.
*** Assumes fee increases by Order in Council in effect in 1985/86.

OBSERVATIONS

Faced with a large backlog in processing applications, the Branch launched, in 1979, a program to automate and to make more efficient many of its operations. Substantial productivity gains were realized.

ASSESSMENT

The average elapsed time from the filing of a Trade Mark application to the granting of rights is 19 months. Of this total, the application spends about 10 months in the Trade Mark Office.

OPTIONS

The study team recommends to the Task Force that the government consider proceeding with phased introduction of legislative amendments as outlined in the CCAC legislative overview report. In the meantime, the Trade Marks office should establish and meet performance standards for processing applications. As well, the office should be tasked to examine the possibilities for direct filing from trade mark agents' offices via modern telecommunications networks.

SMALL BUSINESS PROGRAMS

LOANS
Federal Business Development Bank

OBJECTIVES

To assist in the establishment and development of business enterprise in Canada by providing loans or loan guarantees to Canadian business where credit is not otherwise available to that person on reasonable terms. The FBDB is also expected to recover its costs in meeting this objective.

AUTHORITY

Federal Business Development Bank Act.

DESCRIPTION

Under the FBDB Act (s. 20), the Bank may lend money to a person if:

the person is engaged or about to engage in a business in Canada;

credit is not otherwise available on reasonable terms and conditions;

persons other than FBDB invest a reasonable amount in the business;

the business may reasonably be expected to prove successful;

reasonable security is available.

Another section of the Act requires FBDB to give particular consideration to the needs of small business.

The FBDB offers term loans at floating or fixed rates to allow business to acquire fixed assets such as land, building, machinery and equipment. Loans can also be extended for other business purposes and loans for working capital are available.

Reflecting its role as lender of last resort to higher risk businesses and to achieve its cost recovery objective, the FBDB's interest rates are higher than market rates, generally being of the order of 2 - 4 per cent above prime.

In fiscal 1984 the Bank authorized around 2,200 loans for a total of $321.2 million. The Bank's plan for fiscal 1985 forecasts authorization of 2,100 loans amounting to $382 million. Based on current activity, however, the result is likely to be around 3,000 loans for about $500 million in the year ended March 1985.

The amount of loans outstanding at the end of fiscal 1984 was $1,627 million, down from $2,025 million in fiscal 1980. The FBDB share of all business term loans under $5 million has dropped from 11 per cent in 1980 to 8 per cent in 1983. (During this period SBLA's share increased from 4 to 6 per cent.)

The Bank has a network of 88 branches across Canada. As part of its increased efforts to recover costs, 15 branches have been closed since March 1980.

BENEFICIARIES

The usage of the FBDB varies greatly from province to province (see Annex). In 1984, the greatest number of loans was made in British Columbia, while on a per capita basis Newfoundland was also a very large user. There is also a large diversity in the average size of loan, with those in the Atlantic provinces being considerably below those in the rest of Canada.

Using the Industrial and Regional Development Program (IRDP) designation of Tier I-IV areas, FBDB's penetration rate, measured by the proportion of total businesses in the area which is represented by FBDB customers, is greatest in Tier IV areas at 9 per cent. The penetration rate in Tier I areas is 3 per cent, while that for all regions is 4 per cent.

While the median FBDB loan size was $25,000 in fiscal 1980, by fiscal 1984 it had increased to $77,000 and will further increase in fiscal 1985. The average loan size in fiscal 1984 was $149,000 and is likely to be around $180,000 in 1985.

About 30 per cent of the value of FBDB loans in 1984 was taken up by the 77 largest loans, representing only 3½ percent of customers. These loans were all for amounts in excess of $0.5 million, with the average amount being around $1.275 million.

Compared to the chartered banks, a greater proportion of FBDB's lending activities are concentrated in the service industry, more frequently finance general working capital, equipment and leasehold improvements, and offer longer repayment terms.

There were 22,000 loan customers on the books at September 1984 and these customers employed between 250,000 and 300,000 persons. Thirty percent of these employees are under 25 years of age, compared to around 21 per cent for the economy as a whole.

FINANCIAL DATA (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Portfolio	1627	1596	1631	1661	1701
Provision for Losses	172	157	137	132	129
Portfolio net	1455	1439	1494	1529	1572
Net Interest Income	74	65	64	67	70
Operating Expenses	65	59	48	49	50
Provision for Losses	72	29	24	26	27
Net Income (loss)	(63)	(23)	(8)	(8)	(7)
New Loans: Value	321	382	400	440	485
Number	2157	2100	2200	2400	2700
Staff	1261	948	924	n.a.	n.a.

Source: FBDB Corporate Plan, Spring 1985 (draft of December 19, 1984)

OBSERVATIONS

The federal government has two general programs for providing loan financing to small businesses, the FBDB and the Small Business Loans Act (SBLA), which operate in different ways. The SBLA adopts a formula approach which hands over to the private banks the decision on whether to provide a loan. The formula tightly defines eligibility and the private financial institution simply has to determine

whether the applicant comes within the parameters of the formula (sales volume, fixed assets, etc.) The FBDB, on the other hand, adopts a project approach and funding is available for a wide range of purposes such as working capital, leasehold improvements etc.

The Industrial Development Bank (IDB) was established in 1944 to assist in the development of enterprises in Canada by making term loans, a form of financing not then available from the chartered banks. In 1975, the FBDB, with a somewhat broader mandate, replaced the IDB. Since that time, however, changes to banking legislation have led to greater activity by the chartered banks in the FBDB's target market, and amendments to the SBLA have resulted in increased usage of that program. Consequently, the market share of the FBDB has been shrinking to where it now services around 8 per cent of the small business loan market. Also, this share tends to consist of loans in the high risk class.

In addition, all the provinces have programs offering finance to small business, generally on a concessional basis, although the richness of the programs varies.

There are three principles governing the loans operation of the FBDB which oblige it to operate on a knife's edge:

it must provide financing to businesses that otherwise cannot find it on reasonable terms and conditions (i.e. accept high risks);

it must recover its operating costs; and

it should not compete with the private financial institutions.

These principles oblige the Bank to serve the high risk end of the market and it is expected to do this at reasonable rates of interest. With its smaller market share it is unable to spread these high risks over a broad spectrum of good and bad loans. Thus, to recover its costs, it must compete with the private banks for the good business or charge "unreasonable" rates. Alternatively, it makes larger losses. In the light of these conflicting aspects of

the FBDB's mandate, the Small Business Financing Review, conducted by DRIE in 1982, stated "it is difficult to avoid the conclusion that either the Bank's mission must be changed or the constraints released or both."

In response to the 1983 Cabinet directive under which it was instructed to ensure that loan losses do not exceed $50 million per year, the FBDB has tightened up on its lending. The Bank's operating loss (and consequently contribution from the government) in 1984-85 is expected to be $23 million, down from $63 million in fiscal 1984. The Bank projects further reductions in its losses to around $8 million in fiscal 1986. It suggests that this loss could be eliminated by closing 36 more branches. $8 million is a lot less than $50 million, though.

If the constraints on competition were relaxed, the FBDB could become a government owned bank with perhaps a charter to offer innovative financing to small business so as to provide real competition to the private banks. However, there is no conclusive evidence that there is a need for a ubiquitous government owned competitive bank; and the objective of increasing competition in financial markets could be addressed by removing market constraints on existing and potential private financial institutions.

Alternatively the government could relax the cost recovery constraint and indicate it was prepared to meet the costs of FBDB making high risk loans at "reasonable" rates. This would lead to increased calls on the federal budget.

ASSESSMENT

The fundamental question relates to the mission of the Bank viz is it still necessary? The evidence is not conclusive. The Small Business Financing Review concluded that:

> "with the measures the federal government now has in place and with increasing attention paid to the financing needs of small business by private sector financial institutions, most small businesses are reasonably well served."

These federal measures, of course, include the FBDB's lending activities. In regard to the FBDB the Review stated:

> "the weight of available evidence suggests that the market niche available to FBDB has shrunk and will likely continue to shrink. While it is difficult to forecast the volume of business available to the Bank as a supplemental term lender, the experience of the last two years suggests that is well below that which the Bank is geared to handle."

In assessing the decline in market share of the FBDB in recent years it should be noted that business investment was strong immediately prior to the last recession and that there is underutilization of capacity at present. The result has been a drop-off in the total volume of business investment and the chartered banks have competed aggressively to maintain their volume of lending. This situation could change with improved economic activity.

Most studies of financing for small business have concluded that the availability of equity financing rather than debt financing is likely to be a problem for a small business, and that it is in this area that governments might have a role.

Industry organizations (Canadian Federation of Independent Business, Canadian Organization of Small Business), as well as some individual business people contacted by the study team, questioned the need for the loan operations of the FBDB. Others have suggested that if there is a gap in the financial markets which private financial institutions are not serving, it is in the seed and start-up stage. Some evidence for this view could be drawn from the FBDB's greater market penetration in Tier IV areas and its portfolio profile (higher risk, working capital, service industry, etc.). It has also been suggested that private banks, even if financial markets were made more competitive, would not service a large proportion of the FBDB's clientele because of the high operating costs involved in servicing small loans.

A June 1984 survey of owner/operators of independent businesses concluded that the FBDB is doing a good job in servicing its clientele, but that overall awareness of the FBDB is not particularly high. There was also a perception that the Bank is too involved with large businesses at the expense of small business.

Another study of FBDB clients, concluded in January 1984, found that fixed-rate term loans coupled with amortization periods that can extend over a relatively long period of time and the Bank's reputation as a lender to small and medium-sized businesses are the key factors that motivate clients to borrow from the FBDB. However, given that the FBDB is intended as a lender of last resort, it is interesting to note that 37 per cent of those surveyed replied that they had not contacted any other financial institution before approaching the FBDB, and that 24 per cent of those who had approached other institutions had been offered finance.

On balance the study team considers that given the increased activity of private sector institutions and the other programs that governments, both federal and provincial, have in place there is no longer a general need for the federal government to provide direct financial services to small business through the loans operations of the FBDB. There may be some needs in particular regions, such as Newfoundland, but these needs could probably be addressed by other mechanisms (e.g. reinstate federal funding for the Newfoundland and Labrador Development Corporation).

The FBDB is one of a number of federal agencies providing loan finance for business purposes. Others include the Farm Credit Corporations and the Fisheries Improvement Loans Administration of the Department of Fisheries and Oceans. If the FBDB is to continue its loans activities, consideration could be given to utilizing the FBDB's capacity for financial analysis and services to management in the delivery of other lending programs. In the limit, FBDB could take over these programs.

Also, the Department of Indian Affairs and Northern Development (DIAND) provides finance to native persons through both grant and loan programs. At present outstanding loans amount to around $45 million. This raises questions about the potential for conflict between the various roles of DIAND and whether it should be in the business of acting as a banker. If the government were to continue the loans activity of FBDB there would appear to be opportunities for the Bank to take over the lending functions of DIAND. This could have additional potential benefits in making the management services activities of the

Bank more available to native peoples generally. It would probably be desirable to broaden the coverage of the native loans programs to cover all native people not just the restricted groups presently covered. Further study, perhaps by the Study Team on Native Programs, is required of the implications of these proposals for other aspects of DIAND activities.

OPTIONS

The government has recently agreed to extend the SBLA for a further five years with some modifications aimed at placing more of the costs on the banks. The modifications will also extend the program to businesses with less than $2 million in sales. Although the Federal Business Development Bank and the Small Business Loans Act are not substitutes, it could be argued that the SBLA, together with the various provincial programs, is a sufficient response to the debt financing needs of small business and that the loans activities of the FBDB should be terminated. In this scenario it would be desirable to publicize the existence of SBLA as it appears to be a less well known program than the FBDB. As the prime function of the FBDB, term lending, would be terminated, it might be preferable to wind up the Bank and carry out its remaining functions (management services -- and perhaps investment banking?) through other mechanisms, such as through the regional offices of the Department of Regional Industrial Expansion. Winding up the Bank would require the approval of Parliament. Implementation would also involve a decision on whether to divest the loan portfolio or hold it until maturity. The portfolio could be offered to the private sector (at a suitable discount) or perhaps to the provincial lending agencies, a course which could involve some ongoing federal funding. Also the Bank employs around 950 persons in its loans operation and wind-up of the financial services would result in lay-offs. Negotiations on the portfolio could also include negotiations on the Bank's employees. These considerations, and others, including the regional impact, suggest that DRIE, together with the FBDB, would need to draw up a detailed implementation plan including a communications plan aimed at reassuring the public that small business will continue to be assisted and that SBLA has advantages over FBDB loans. If it were decided that there was no longer a need for the lending operation of the FBDB, the continued operations of the Farm Credit Corporation should probably also be questioned.

An alternative would be to build on the loans expertise of the FBDB, its management services programs and its broad regional locations to redirect the activities of the FBDB loans program towards providing partial credit insurance/loan guarantees on loans granted by private sector financial institutions. Such a program could be either an adjunct to, or a replacement of, SBLA, and would involve the government agency, FBDB, in some analysis of individual loan applications to determine the extent of the guarantee (50 to 90 per cent?) and to provide advice on how to approach private financial institutions. The guarantee could also be restricted to the difference between the total amount required and the amount the private financial institution would be willing to lend in the absence of a guarantee. A guarantee fee would be charged and the objectives would be to encourage private institutions to provide finance to small/medium businesses at reasonable rates. The purposes for which the loans were provided could be broader than presently available under the SBLA, including for working capital, leasehold improvements etc. Because of this, and to prevent the private banks from using the guarantee simply to protect their own positions and thus increasing the cost to the government, it is suggested that the FBDB would undertake some analysis of defined (but not all) loan applications. There would, of course, be a cost to the government and, as the objective would be to reduce the rate of interest paid by small businesses, this cost is likely to exceed the current cost of the FBDB loans operation for the same level of lending. As well as providing cheaper finance to small business, this alternative would have the optical advantage of removing the FBDB as a potential competitor for the private banks. It would also allow FBDB to position itself as an ally of small business, rather than a perceived usurer. This alternative could be implemented as part of a one-stop shop for small business (including, perhaps, a change of name). Details of implementation would need to be worked out, but it is possible that fewer staff, or a change in the composition of the present staff, would be required by FBDB, leading to lay-offs.

Of course, government could continue the status quo and implement a communications strategy aimed at correcting some of the misconceptions concerning the role of FBDB, and perhaps merging the native loans functions carried out by the Department of Indian Affairs and Northern Development.

ANNEX: FBDB LOANS AUTHORIZED

Classification by province:

	83			84		
	No.	Amount ($000)	Average ($000)	No.	Amount ($000)	Average ($000)
Nfld.	180	15,362	85	152	16,369	108
P.E.I.	25	1,398	56	15	953	64
Nova Scotia	171	12,144	71	91	7,195	79
New Brunswick	198	10,911	55	140	12,194	87
Quebec	625	99,891	160	496	85,299	172
Ontario	850	85,634	101	438	61,900	141
Manitoba	57	8,252	145	33	4,910	149
Saskatchewan	67	6,956	104	61	7,879	129
Alberta	300	36,250	121	163	41,618	255
B.C.	919	88,085	96	540	77,851	144
Yukon	20	1,084	54	11	1,279	116
N.W.T.	24	4,510	188	17	3,725	219
TOTAL	3,436	$370,477	108	2,157	$321,172	149

INVESTMENT BANKING
(Federal Business Development Bank)

OBJECTIVE

To increase the amount of risk capital available to promising small and medium sized businesses in Canada.

AUTHORITY

The Federal Business Development Bank Act (s.20), the revised mandate given to the FBDB in 1983, and a Treasury Board decision of 1984/85.

DESCRIPTION

The FBDB has been involved in equity investment almost from its inception in 1974, largely as a by-product of its term lending activities. The Investment Banking Division was set up in 1983 as a result of the revised mandate it received from the government in that year to mobilize risk capital in Canada. The Division took over existing equity investments. The Division is funded by equity from the government (current total $48 million) which is used to invest, and to serve as a catalyst for private sector investment, in small/medium companies with high growth potential. The Bank performs this role by full syndication to private sources of equity financing, by underwriting a company's stock issue, and by investing jointly with the private sector.

The Investment Banking Division has developed four integrated services:

Venture capital: investment in an immature high growth potential company;

Equity financing: investment in a company expanding or in temporary difficulties;

Mergers and acquisitions: participation in or advisor/negotiator on mergers and buyouts; and

Syndication and underwriting: assumption of the capital risk in underwriting junior industrial issues as well as packaging investment opportunities for private sector investors.

In fiscal 1984 the Division made 14 investments amounting to $7.9 million, while for fiscal 1985 it expects to invest $17 million in 20 proposals and underwrite a further 5 investments for $2.5 million. Investment and underwriting activity is expected to remain at about the same levels in fiscal 1986 with an additional $2.5 million being used to syndicate 5 investment proposals.

The total funding from the government to the end of fiscal 1985 is $48 million and the FBDB is seeking a further $16 million over the next two fiscal years ($12 million in fiscal 1985-86).

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Venture Capital/ Equity Investment	22.4	38.2	50.6	57.3	63.2
Cash & Short Terms	12.6	8.2	8.1	8.6	8.4
Total Assets	35.0	46.4	58.7	65.9	71.6
Capital (a)	36.6	48.0	60.0	64.0	64.0
Revenues	2.9	3.1	4.7	9.1	11.5
Provisions for Losses	1.1	1.6	2.0	3.4	3.1
Operating Expenses	2.8	2.4	2.4	2.5	2.7
Operating Income (loss)	(1.0)	(0.9)	0.3	3.2	5.7
Investments					
Number	14	20	23	23	23
Amount	7.9	17	16.1	16.4	16.0
Syndication/ Underwriting					
Number	----	5	10	11	15
Amount	----	2.5	5.0	5.8	10.1
Staff	26	19	19	20	20

a. Assumes equity payments by the Government of Canada of $12 million in 1985-86 and $4 million 1986-87.

OBSERVATIONS

The Economic Council of Canada in its 1982 study of Government credit to the private sector, "Intervention and Efficiency", concluded that businesses have little difficulty in borrowing regardless of their size but that "they may ... encounter some difficulty in increasing or maintaining their equity base, and this is where government could play a complementary role in the financial markets." This, and similar conclusions from other studies, forms the rationale for the FBDB'S participation in investment banking activities.

In addition to the FBDB, most provinces have in place programs designed to encourage the formation of venture capital. Examples include the Ontario Small Business Development Corporation where a grant (or tax credit) of 30 per cent is paid to investors; the Société de développement et l'entreprise Québecoise (SODEQ) in Quebec, which grants a 25 per cent tax deduction; and Nova Scotia's Venture Corporation.

Private sector venture capital firms appear to be playing an increasing role in Canadian capital markets. It also appears that a significant pool of money is available for equity investment, but that the investment opportunities available do not match the portfolio diversification requirements of the investors. The FBDB itself, in its matchmaking program,has identified around $150 million of investible funds and although it identified $160 million in possible investments, actual matchmaking to date is only $2.5 million.

ASSESSMENT

It is possible that in spite of the available funds the small end of the equity market -- less than $500,000 -- is not being well served by private sector venture capitalists because of the relatively high costs, risks and degree of management involvement in relation to the expected return. The fixed costs of a small equity investment are not greatly different from those of a larger one.

The Bank's involvement has been relatively modest and is not expected to grow greatly -- about 30 investments in fiscal 1986. However, it does expect to recover its costs from fiscal 1986 onwards and is currently doing so.

If there is a problem with the less-than-$500,000 segment of the equity market and in obtaining seed capital, is the FBDB's investment banking role the most appropriate government response? In this context it should be noted that the Bank's own activity in fiscal 1985 is expected to average $0.8 million per investment; and much of its investment is not in the pre-start-up stage of the companies.

The FBDB sees its role as being a catalyst to private sector investment. However, private sector venture capitalists seek very high expected returns -- in excess of 40 per cent -- on individual investments so as to make a good return across their entire portfolio after allowing for the high rate of failures. It could be argued that if this return is available, the private venture capitalist will invest anyway; if it is not, he is not interested.

One other aspect of an investment or venture capital operation is that it has to be closely involved in the management of the target firm and be willing to take the hard decisions. This may not be an appropriate role for a government agency, using public funds and subject to public and political comment.

Given the possible problems involved in a hands-on approach by a government agency, some analysts argue that the most appropriate way for the government to encourage equity investment in small business is to set the right fiscal environment. Taxation measures such as a special tax credit could be utilized, although unless there was a cap on the tax expenditure or some administrative mechanisms for authorizing the investments, the cost in foregone revenues could be high.

OPTIONS

Given the increased maturity of Canadian financial markets and the existence of the various provincial programs to encourage venture capital investment, the federal government could consider disengaging itself from direct provision of venture capital. This option could be accompanied by action to further free up capital markets

by removing some existing restrictions in the investment decisions of trust funds, pension funds, etc. The FBDB's investment portfolio could be offered for sale, or devolved to the provinces. Planning would also be necessary to handle the resulting staff redundancies.

However, if the FBDB is to continue to provide debt financing through its loans activity then it probably should also be able to make some equity investment in appropriate circumstances. In these circumstances the government could, as a window on the investment banking industry and as a means of encouraging private sector equity investment in small firms, maintain the Investment Banking Division of the FBDB, but limit the government's equity to the present $48 million. This would require a revision to the forward plans of the Bank and perhaps divesture of some current investments earlier than planned. It would be unlikely to lead to lower requirements for staff.

FINANCIAL PLANNING PROGRAM
(Federal Business Development Bank)

OBJECTIVES

To provide information and aid to small and medium businesses in the formulation fo their business plans and in packaging their financing proposals to financial institutions for loans, grants guarantees and equity.

AUTHORITY

The Federal Business Development Bank Act provides the legislative authority for the activities of the FBDB. The FBDB instituted this program in response to the revised mandate it received from the government in 1983 and funding is provided by the Appropriation Act.

DESCRIPTION

The program was introduced in fiscal 1984 as a two-year pilot project and is available at 20 of FBDB's 88 branches. It has four major components:

a. Do-it-yourself Financial Planning Kits - around 14,500 sold for a nominal cost of $10 each, of which approximately 7,400 will be sold in fiscal 1985 to all sectors fo business.

b. Packaging and Intermediation - for longer and more complex projects the FBDB develops on behalf of a client a proposal which can be presented to financing institutions. It is estimated that for fiscal 1985, 200 packages, seeking $110 million in financing, will be developed. The main industry sector utilizing the service is manufacturing (38 per cent) followed by the service/hospitality industry (30 per cent).

c. Matchmaking - bringing together provate investors having money and expertise with firms seeking investment. Twenty-seven matches involving $2 million of equity have been completed to date.

d. Business Planning - a newly introduced program assisting entrepreneurs with their long-range strategic planning.

The financial Planning Program currently recovers 19 per cent of its cost and this rate is expected to increase in future years.

BENEFICIARIES

FBDB programs are available to persons engaged or about to engage in a business enterprise in Canada, agiving particular consideration to the needs of small business.

EXPENDITURES (millions of current dollars)

	83/84	84/85	85/86	86/87	87/88*
Salaries	1.3	2.5	6.4	8.5	8.7
O&M	0.9	1.7	4.1	5.6	5.8
Total Operating Costs	2.2	4.2	10.5	14.1	14.5
Revenue	(0.2)	(1.3)	(3.6)	(5.8)	(7.0)
Net Costs	2.0	2.9	6.9	8.3	7.5

* These estimates reflect the proposals to extend the program beyond its initial two years and to expand it to a further 20 branches in fiscal 1986 and a further 16 branches in fiscal 1987. Expenditures for 1986/87 and 1987/88 are assumed to increase by 5 per cent per annum.

OBSERVATIONS

An evaluation of this pilot program was required by the Treasury Board. The terms of reference for this evaluation are still under discussion so no formal evaluation has taken place. The FBDB is seeking funds to continue the program beyond fiscal 1985 and to expand it to a further 20 branches.

ASSESSMENT

This program is one of the four programs offered by the FBDB under its commission to provide management services to small business. A repeated finding of sucessive small business review has been that the lack of management and financial expertise is a major cause of firm failure and that, consequently, there is a need for measures to improve the management skills of small business. The FBDB's programs are a response to this finding, but other departments and agencies, including provincial agencies, have instituted similar programs. The multiplicity of

programs and agencies offering them leads to confusion among small businesses, who do not have the time nor the expertise to find a path through the maze. This raises questions of consolidation, both of programs and delivery including that of "one-stop shopping" (or some similar mechanism) for business. Those questions, however, are not related solely to this program and these thematic questions need to be addressed in a cross-program manner.

Studies carried out for the 1982 Small Business Financing Review found that if financing were a problem for a small business it was likely because of lack of expertise in financial planning. This program seeks to address that problem.

OPTIONS

The study team recommends to the Task Force that pending the outcome of the current evaluation the government consider restricting the planning service to the 20 branches and the price of the various services be increased to reflect more closely the costs of the service.

Any comprehensive implementation of one-stop shopping for business would include financial planning and packaging services fo the type offered in this program. Looked at in isolation, however, one possibility might be to concentrate this program at fewer branches of the FBDB, offering a wider range of services as part of a pilot program of one-stop shopping.

Alternatively the program could be allowed to lapse in 1985 at the conclusion of the two-year trial period.

COUNSELLING ASSISTANCE TO SMALL ENTERPRISES (CASE)
(Federal Business Development Bank)

OBJECTIVES

To assist small businesses to improve their business practices by making available the counselling services of retired, successful business people.

AUTHORITY

The Federal Business Development Act (s.21) provides the legislative authority for the management counselling activities of the FBDB. Expenditures in respect of the Bank's management services programs are funded under the Appropriation Act.

DESCRIPTION

The CASE program is offered at all FBDB branch locations and has around 1,300 counsellors across Canada, drawn from the ranks of retired successful businessmen. In fiscal 1984, around 13,500 assignments were undertaken, of which 87 per cent were with businesses employing less tha 10 persons. A broad spectrum of small business activities was involved. Clients counselled in relation to starting a business accounted for 31 per cent of the total. The client is charged and hourly rate for the counsellor's time that does not provide for related costs such as travel and other out-of-pocket expenses, which are met from the federal budget. The cost recovery rate has increased from 19.7 per cent in fiscal 1983 to 22.3 per cent in fiscal 1984, and is expected to be around 23 per cent in fiscal 1985.

BENEFICIARIES

CASE is available to persons/firms engaged or about to be engaged in a business enterprise in Canada provided the enterprise has less than 75 employees.

EXPENDITURES (millions of current dollars)

	83/84	84/85	85/86
Salaries	2.0	2.5	2.6
O&M	6.0	7.0	6.9
Total Operating Costs	8.0	9.5	9.5
Revenue	1.5	1.7	1.9
Net Costs	6.5	7.8	7.6
Person-Years	70	79	81

ASSESSMENT

A survey carried out by Dun and Bradstreet in 1983 concluded that the primary cause of business failure in Canada was a lack of management skill and experience. This program is aimed at improving the management of small companies by utilizing the skills of experienced managers to provide counselling.

Various reviews of the CASE program have been generally positive. The program appears to have a wide acceptance amongst users. An evaluation carried out in 1984 by Cousineau Professional Services (presented to FBDB in December, 1984) concluded "the CASE concept... is still justifiable today". It found that the program was:

> "generally judged to be of excellent quality, although it needs to be refined to delineate its activities to avoid supplying counselling to those who can afford to pay professional fees and dovetail more effectively with the private sector."

This finding raises the most important question concerning CASE; namely, whether the government should be providing management counselling services which can be had, albeit at a fee, from the private sector. Presumably the justification is that in the absence of government intervention, the service would not be readily accessible to the small business target group because of cost, location, lack of awareness, etc. There are other possible mechanisms for addressing these deficiencies, but it can be argued that direct intervention such as CASE is the least costly to the government. A side benefit of CASE is that it utilizes the skills of retired persons and provides them with some supplementary income.

In discussions with members of the study team, representatives of small business organizations have been very positive in their attitude to CASE.

OPTIONS

The study team recommends to the Task Force that the government consider continuing the CASE program but at a fee level which recovers a greater percentage of the cost of the service. Also, encourage clients to make greater use of private sector services by implementing a graduated fee scale, under which repeat clients who have used CASE and who are able to pay, pay full cost recovery fees.

Encouraging the provision of skilled management advice to small businesses would appear to be a legitimate policy objective of government. However, given the existence of private counselling services, an alternative mechanism might be for the government to publicize widely the need for small business to utilized such services and provide financial assistance, perhaps in the form of vouchers, for small business to enable them to utilize the private services. Such an approach would by necessity be less targetted than the CASE program and its utilization could be less certain. It is likely that for the same government outlays, fewer small businesses would receive benefit under the program.

TRAINING
(Federal Business Development Bank)

OBJECTIVES

To improve the management skills of the owners and managers of small Canadian businesses to alleviatge a primary cause of business failure.

AUTHORITY

The Federal Business Development Bank Act (s. 22) provides the legislative authority for the management training activities of the FBDB. Expenditures in respect of these programs are funded under the Appropriation Act.

DESCRIPTION

FBDB conducts management training seminars in towns and cities throughout Canada. The eminars offer training on various business topics -- such as finance, general management, marketing, and personnel practice -- and the Bank collaborates with public and private sector departments and associations in developing joint seminars. It also develops owner-managed courses for the use of provincial and territorial education ministries. Workshops, designed to answer specific local training needs which cannot be provided for through regular training courses, are also offered. In addition, FBDB offers self-teaching audio-visiual management clinics in all of its branches.

The Bank has recently been given responsibility for administering the Atlantic Provinces Management Training Program, which is a specific response to a perceived deficiency in management skills and training programs in Atlantic Canada. Funding of $850,000 per annum for 5 years has been approved for this sprogram.

BENEFICIARIES

The management training programs are available to small Canadian businesses. Around 30,000 people annually participate in the seminar activities and 26,000 owner/manager courses were sold in fiscal 1984.

Fees are charged for most of the training activities but these meet only part of the costs. The level of cost recovery has increased from 21.3 per cent in fiscal 1979 to 32 per cent in fiscal 1984.

EXPENDITURES ($ Million)

	83/84	84/85	85/86 *
Salaries	2.6	2.7	3.0
O&M	3.5	4.4	3.9
Total Operating Costs	6.1	7.1	6.9
Revenue	1.6	1.7	1.8
Net Costs	4.5	5.4	5.1
Person-Years	65	68	72

ASSESSMENT

* Does not include $850,000 or person years for the Atlantic Provinces Management Training Program.

OBSERVATIONS

The FBDB training programs are part of the Bank's management services package aimed at improving the management skills of small and medium businesses. A number of studies of the FBDB programs have concluded that they are well presented and worthwhile.

In addition to private sector training programs, the provincial governments offer management training and advisory services to small business. Co-sponsorship by the FBDB and provincial agencies of training seminars and workshops is common.

In November 1984, Cousineau Professional Services presented a report to the Bank on its seminar program which concluded that "generally speaking the product is of excellent quality and meets a demand". Contact by the study team with representatives of small business organizations has generally been supportive, with the caveat that the FBDB should not duplicate private sector services.

In regard to the Atlantic Provinces Management Training Program, Prince Edward Island and New Brunswick have written to the Minister of Regional Industrial Expansion seeking to restore previous funding arrangements; and Nova Scotia has suggested that a sub-agreement be signed under the Economic and Regional Development Agreement to fund management training in that province.

ASSESSMENT

Similar considerations arise here as with the other aspects of the management services activities -- is there a need for the federal government to provide the service given the involvement of the private sector and the provincial governments? The Cousineau study quoted above concluded "the demand....is so vast that there is no hope for the private sector alone to cope with it and at competitive prices. The role of FBDB in these areas is a necessity and welcomed by both the business community and professional educators".

This conclusion needs to be examined carefully. There is a market clearing price which would equate supply and demand in the private sector. The question is whether this price is too high given the competing demands on the limited resources of the target group and the knowledge of that group concerning the value of the service. If the government for public policy reasons wishes to reduce the price of the service and make it available more widely, then continuation of the FBDB program is one alternative. If the unsatisfied demand at the subsidized price is "vast" then direct provision of the service by a government agency, with a cap on total resources allocated, is likely to be less costly to the budget than alternatives involving subsidization of the private sector.

The consensus of views from those contacted by the study team is that there is a need for the federal government to be involved in the provision of training for small business but that it is essential to ensure that the programs complement, not duplicate, those offered by the provinces or the private sector. Because of the variety of provincial programs it is not possible to say whether there is significant overlap, but the combined view of the Federal Economic Development Co-ordinators is that the training programs are more likely to be complementary. The need, however, is greater in the more isolated communities and the delivery mechanisms should be looked at to ensure delivery in these communities.

OPTIONS

The study team recommends to the Task Force that the government consider continuing to provide training programs through the FBDB with regular consultation with the provinces and private sector industry associations to ensure

that the programs do not duplicate services offered elsewhere. Fees could also be increased to recover a greater proportion of the costs.

Also, as with the other aspects of the FBDB management services programs, the training program is one of the government services that should be considered in the provision of a business "one-stop shop".

Alternatively, the option to withdraw the FBDB service, and devolve the training programs to the province, perhaps through sub-agreements under the Economic and Regional Development Agreements presents itself. Consideration could also be given to a publicity campaign to make small business aware of the importance of management training and of the availability of private sector and provincial training programs.

INFORMATION SERVICES (FBDB)
(Federal Business Development Bank)

OBJECTIVES

To make available to business, particularly small business, information on government assistance programs both financial and non-financial.

AUTHORITY

The Federal Business Development Bank Act (s. 23) provides the legislative authority for the information services activities of the FBDB. Expenditures in respect of these programs are funded under the Appropriation Act.

DESCRIPTION

Under the Small Business Information Service (SBIS), each FBDB branch provides information on federal, provincial and municipal government assistance programs. In fiscal 1984, some 20,000 enquiries were dealt with and over 70,000 assistance program referrals made. The SBIS has been computerized and is intended to form the basis for the Automated Information for Management Program (AIM), which will provide a computerized information and data network through FBDB branches.

Free Information Sessions, of one to three hours duration, are also used to provide information on programs, with over 15,000 people attending 400 sessions in fiscal 1984.

The FBDB publishes the ABC Book (Assistance to Business in Canada) as well as other publications. It also organizes Small Business Week each year in cooperation with the Canadian Chamber of Commerce.

The Bank's Information Services are presently offered without charge. It is intended that some charge be levied for the AIM services.

FBDB is integrating the DRIE Business Information Centres into its locations, eliminating some program overlap.

BENEFICIARIES

Persons engaged or about to engage in a business enterprise in Canada.

EXPENDITURES (millions of current dollars)

	83/84	84/85	85/86 *
Salaries	3.8	4.6	5.4
O&M	5.3	5.8	6.1
Total Operating Costs	9.1	10.4	11.5
Revenue	-	-	0.3
Net Costs	9.1	10.4	11.2
Person-Years	65	68	72

* Note: includes resources for AIM

ASSESSMENT

Dissemination of information on government assistance programs for small business is necessary and many agencies, both federal and provincial, are providing this service in some form or another. Many of these services are specialized in that they provide information on the programs managed by the agency concerned. If information is provided on other programs it tends to be less than comprehensive.

In addition to FBDB, the main federal agency providing information on federal government business programs is DRIE, largely through its 30 plus regional and sub-regional offices. Some integration, through the melding of the DRIE Business Information Centres into the operations of the FBDB has taken place in all provinces except Newfoundland, Manitoba and Saskatchewan. Other federal agencies include the Canada Employment and Immigration Commission, whose main focus is not business services, and the National Research Council. Most provincial governments also provide information on government programs, including federal programs.

Although surveying has provided a positive response to the information services of FBDB, the question is whether or not FBDB is the appropriate vehicle for deliverying the services. The extensive Branch network of the Bank together with its experience and expertise, suggest it as a prime candidate for providing "one-stop shopping" for business information and management advice, if it were considered desirable to rationalize information services.

A Task Force of federal government departments and agencies in Ontario has examined proposals for improving the accessibility and effectiveness of the delivery of federal business program. Agencies represented on the Task Force expressed doubts as to the feasibility of a "one-stop shop" approach and instead are developing an alternative, a Pathfinder Network. This network would consist of officers delivering federal programs in the province receiving some cross training on programs other than their own so that they could deliver information and help clients access all the core federal business programs.

The AIM program which is still in the developmental stage, is potentially a very powerful information base which could be of great benefit to business and government alike. However, a considerable amount of work remains to be done on refining the software and assessing the operation.

OPTIONS

The study team sees three options with the following considerations and consequences:

- To continue the information services of the FBDB and to enhance those services by making the FBDB the primary stop for persons seeking information (and advice) on federal business programs. Under this scenario other agencies would utilize the branch network of the FBDB to disseminate inforamtion on their programs with a reduction in their own direct delivery of information. Further study would be required to determine what information and other sevices would be provided by FBDB and the resource implications.

- Maintain the status quo but seek to recover some costs associated witha the service, e.g. a charge could be made for the ABC Book. Also, enhance the delivery of information on business programs by devloping the Pathfinder Network concept.

- Examine options for joint delivery of information services with the provinces.

BUSINESS INFORMATION CENTRES
(Regional Industrial Expansion)

BACKGROUND

Until recently the Department of Regional Industrial Expansion (DRIE) operated Business Information Centres in each province. As there was a potential overlap with the management services operated by the Federal Business Development Bank (FBDB), these Centres are in the process of being merged into the FBDB. Consequently, a detailed program review of the BICs was not undertaken. However, the matter of how best to deliver information and advice to small business still requires examination.

INTRODUCTION

A repeated finding of successive small business reviews has been that the lack of management and financial expertise is a major cause of firm failure and that, consequently, there is a need for measures to improve the management skills of small business. For example, studies carried out for the 1982 Small Business Financing Review found that if financing were a problem for a small business it was likely because of lack of expertise in financial planning.

Partly in response to these findings, governments, both provincial and federal, have put in place measures designed to improve the skills of small business. In addition, government agencies as an integral component of delivering assistance programs need to provide information on the existence and context of their programs to the target business group. This multiplicity of programs and agencies offering them leads to confusion among small businesses, who do not have the time nor the expertise to find a path through the maze.

Representatives of small business have often called for the various government programs to be made more accessible and for program delivery to be less bureaucratic. From the individual business person's point of view, the ideal situation would be one in which he or she could receive all the services (information, advice, program approval, finance) required by contacting one agency and making one simple application. In the extreme this view could argue for one program.

However, given the diverse needs of business and the diverse policy objectives of government, a number of programs are inevitable and necessary. This is not to say that in designing programs, policy-makers should not question whether amendments to existing programs might not be a preferred alternative to simply putting a new program in place, nor to imply that frugality in the number of programs is not a virtue.

This problem of reconciling the diversity of programs with the objective of making these programs easily accessible to the clients has been examined on many occasions. These previous efforts have led to such initiatives as the publication of the ABC-Assistance to Business in Canada book, but the problem of communications still remains. From time to time more radical proposals, including that of "one-stop shopping" have been put forward. This paper briefly examines some of these proposals.

Current Situation

a. Federal Programs and Locations

The programs currently offered by the federal government include:

Federal Business Development Bank
- Loans Operations (term loans, guarantees)
- Investment Banking
- Management Services

Department of Regional Industrial Expansion
- Industrial and Regional Development Program
- Defence Industry Productivity Program
- Small Business Loans Act
- Canadian Industrial Renewal Board
- Business Opportunities Sourcing System

Department of External Affairs
- Export Development Corporation
- Program for Export Market Development
- Promotional Projects Program
- Canadian Commercial Corporation

National Research Council
- Industrial Research Assistance Program
- Program for Industry/Laboratory Projects

Canada Employment and Immigration Commission
National Industrial Training Program
Local Employment Assistance and Development Program

Revenue Canada/Department of Finance
Various tax expenditures

There are, of course, other agencies offering other programs, but the above listing gives some idea of the complexity of the situation facing a small business.

All the agencies above have some form of regional network. The most extensive is that of the CEIC which, however, is not solely (or even primarily) geared towards providing services to business.

The next largest network is that of the FBDB with 88 branches across Canada offering a wide range of management training, financial planning, consulting and information services, as well as its loans and investment banking operations. In addition to its own services the Bank also provides information on other government services for business. A list of FBDB locations is attached as Annex A.

DRIE has some 30 plus regional and sub-regional offices. These offices have both a policy development function and a program delivery and information function.

Although Revenue Canada has in excess of 30 Regional Offices and Taxation Centres, their role is strictly devoted to information and assistance regarding taxation matters.

The remaining agencies tend to be concentrated in major urban centres.

b. Provincial Information and Advisory Programs for Business

All the provinces offer information and advisory services for business, although the range and comprehensiveness of the programs varies from province to province. The following list, which is by no means exhaustive, shows some of the programs that are available.

Newfoundland

Newfoundland and Labrador Development Corporation
Advisory Services Program

Prince Edward Island

Department of Industry
Management Training

Market Development Centre
Market Research, Information and Education

Nova Scotia

Department of Development
Business and Technical Service Division offers consulting advice and information
Consulting Assistance Program

New Brunswick

Department of Commerce and Development
Commerce Branch offers management, marketing, production, sales and distribution programs.

Quebec

Ministère de l'Industrie, du Commerce et du Tourisme
A range of programs including:
- Programmes Gestion-Marketing
- Programme Outils de gestion
- Direction des services aux entreprises manufacturières
- Service d'information et de transfert de technologie

Ontario

Ministry of Industry and Trade
A range of programs including:
- Small Business Management Development Program
- Financial Planning Model for Manufacturers
- Manufacturing Productivity Services (consulting)

Manitoba

Department of Business Development and Tourism
Feasibility Assistance for Small Manufacturers
Management Development and Training Programs
General Business Consulting

Saskatchewan

Department of Tourism and Small Business operates Regional Business Resource Centres which offer:
Business Information Services
Professional Services
Management Development Programs
Management Training

Alberta

Department of Economic Development
Strategic Planning (economic and market information)

Department of Tourism and Small Business
Business Counselling
Management Assistance Programs

British Columbia

Ministry of Industry and Small Business Development, Small Business Services Branch
Information Services
Management Development Programs

Role of the Federal Business Development Bank

The future role of the FBDB is pivotal to a decision on the various options. In the detailed papers on the FBDB programs, one alternative proposed is to terminate the loans operations of the FBDB. If the government were to adopt that alternative, then a decision has to be taken on the future of the Bank's extensive management services. Possibilities include merging those services into a federal department such as DRIE (and perhaps extending the department's regional network), providing the services through a separate agency; and devolving the programs to the provinces. These possibilities could be accommodated within the general options set out below.

OPTIONS

In looking at possible options for simplifying the process of providing services to business, there are two basic parameters which need to be considered: organizational mechanisms for delivery; and which services are to be delivered. These two parameters are interrelated since the type of services to be provided has a large bearing on the organizational structure and vice versa.

a. One-stop shop

Proposals for establishing federal one-stop shops for information, advice and (possibly) delivery of federal business assistance programs have been put forward from time to time, and there is considerable detailed work available on possible mechanisms. In brief, the options run from designating an existing agency such as the FBDB (with its 88 branches) as the prime conduit for piping information and assistance to business to establishing a new agency either spun-off from the FBDB or completely new. Such a new agency has been variously called Small Business Agency and Enterprise Canada.

Under the "one-stop shop" proposal the designated agency would be responsible for information and assistance in areas such as:

- taxation information (perhaps with Revenue Canada officers located in-house);
- financial packaging of proposals to secure private finance;
- preparation of applications for funded government programs;
- adaptation of new technology;
- government procurement;
- financial planning;
- management counselling;
- market information; and
- export marketing and import replacement.

Under some scenarios, the agency would also offer financial services such as loan guarantees and perhaps direct financing.

Establishing such an agency would require considerable planning. Although it would help to eliminate duplication and competition between programs by providing a co-ordinated approach to the provisions of assistance, it would divorce the information role from program delivery. This could lead to bureaucratic infighting as the various program managers sought to prevent "erosion" of their control over their programs.

b. Federal/Provincial Cooperation

There are many possibilities here but one would be for the federal government to withdraw from the shopfront to the warehouse and allow the provinces to act as retailer of information and management services. Under federal-provincial agreements (ERDA sub-agreements) tailored to the situation in each province, the federal government could use the existing provincial agencies to be the direct contact point with the small businessperson seeking advice. The provincial agency would provide advice on both federal and provincial programs.

c. Pathfinder Network

A Task Force of federal government departments and agencies in Ontario has examined proposals for improving the accessibility and effectiveness of the delivery of federal business programs. Because of interagency rivalries and perceived program complexity, agencies represented on the Task Force expressed doubts as to the feasibility of a "one-stop shop" approach and instead are developing an alternative, a Pathfinder Network. This network would consist of officers delivering federal programs in the province receiving some cross training on programs other than their own so that they could deliver information and help clients access all the core federal business programs.

CONCLUSIONS

From the point of view of the small businessperson, the "one-stop shop" option (either at federal or provincial level) is most desirable. If the government were to decide that there is a federal hands-on role in providing financial services to small businesses (either loans or loan guarantees) then the FBDB (perhaps with a name change) would provide a foundation. In any event, the management services currently offered by FBDB provide a good core around which to develop a complete package.

There are, however, limits as to what services can be provided at one point of delivery and many program managers would see problems if anything more than basic information on their programs were provided. This could be overcome by locating knowledgeable program officers at each point of delivery but the logistics of such an organization would be complex. The question of which services should be offered and the nature of the organization require further detailed study. Also development of the Pathfinder Network, as an integral part of the implementation of "one-stop shopping", could help overcome problems of demarcation.

ANNEX A

Federal Business Development Bank - Branch Network

"A" BRANCHES (22)	"B" BRANCHES (30)	"C" BRANCHES (36)
St. John's (NFLD)	Corner Brook	Grand Falls
Moncton	St. John	Bridgewater
Halifax (Dartmouth)	Bathurst	Truro
Montréal (Place Victoria)	Charlottetown	Fredericton
Montréal (St. Laurent)	Sydney	Edmundston
Ottawa	St.-Jérome	Longueil
Sherbrooke	Rouyn-Noranda	Maisonneuve
Québec	Drummondville	Laval
Toronto	Trois Rivières	Valleyfield
Kitchener-Waterloo	Rimouski	Hull
London	Chicoutimi	Cornwall
Toronto North	St. Catharines	Granby
Sudbury	Windsor	St.-Georges
Winnipeg	Oshawa	Sept-Iles
Saskatoon	Kingston	Mississauga
Edmonton	Timmins	Scarborough
Calgary	Sault Ste. Marie	Hamilton
Victoria	Thunder Bay	Stratford
Kelowna	Kenora	Barrie
Vancouver	Regina	North Bay
New Westminister (Haney)	Grande Prairie	Niagara Falls
Prince George	Yellowknife	Peterborough
	Lethbridge	Brandon
	Red Deer	Prince Albert
	Nanaimo	Edmonton South
	Campbell River	Calgary South
	Kamloops	Fort St. John
	Cranbrook	Duncan
	Terrace	Vancouver North
	Williams Lake	Burnaby
		Langley
		Richmond
		Abbotsford
		Whitehorse
		Courtenay
		Vernon

TOTAL - 88 Branches

MANAGEMENT EXCELLENCE IN SMALL BUSINESS
(Regional Industrial Expansion)

OBJECTIVE

To assist educational institutions to develop improved course material of particular relevance to small business and to allow business students to apply their classroom learning to a practical day-to-day small business environment.

AUTHORITY

Appropriation Act.

EXPENDITURES (millions of current dollars)

	83/84	84/85	85/86
Grants	0.4	0.4	0

ASSESSMENT

This program has been terminated.

SMALL BUSINESS SECRETARIAT
(Regional Industrial Expansion)

OBJECTIVE

To support the Minister of State (Small Businesses) and the Minister for Regional Industrial Expansion and to provide an interface between the federal government and small business and a focus within government for development of policies affecting small business.

AUTHORITY Ministerial decision.

DESCRIPTION

The Cabinet portfolio of Minister of State (Small Businesses) was created in 1976 and the Small Business Secretariat established in January 1977. It is located within the Department of Regional Industrial Expansion in Ottawa and the services it provides include:

advice and information on the various programs and services offered to small businesses by the federal government;

preparation of replies to ministerial correspondence;

a "Hot Line" service whereby small businesses anywhere in the country can place collect calls for advice and information; and

support services for the Small Business Consultative Committee. The Committee, comprised of representatives of small businesses, financial institutions and academia, provides a mechanism for consultation between the Minister and small businesses.

The Secretariat also provides analysis and assessment of policy issues affecting small businesses and acts as advocate for small business. It has recently been involved in the development of the consultation paper on small business.

The Secretariat's only grant program, Management Excellence in Small Business, designed to allow business students to apply their classroom learning to a practical day-to-day small business environment, has now been terminated.

The "Hot Line" is staffed by two bilingual officers, with a recording device taking over after regular business hours. Around 15,500 calls have been logged since March 1980. In fiscal 1984 the Secretariat received 3,693 enquiries from the small business community, of which 3,235 were received by telephone and 458 were handled by correspondence.

The nature of the enquiries varies but a large proportion seek advice on financial assistance documentation and how to start a business. The Secretariat provides callers with both oral and written information on programs, referring them to the appropriate federal or provincial agency if necessary. As part of the Hot Line service, the Secretariat aims to provide an answer or guidance within five days, if the problem cannot be solved immediately.

BENEFICIARIES

Small businesses are generally described as firms with less than $2 million in annual sales and having less than 50 employees. There are around 750,000 small businesses in Canada.

EXPENDITURES (millions of current dollars)

	83/84	84/85	85/86
Wages & Salaries	0.8	0.7	0.8
O & M	0.4	0.2	0.2
Grants (a)	0.4	0.4	0
TOTAL Operating Costs	1.6	1.3	1.0
Person-years	19	19	19

a. The Management Excellence in Small Business Program has been terminated.

OBSERVATIONS

It is axiomatic that, if there is to be a Minister of State (Small Business) assisting the Minister for Regional Industrial Expansion in relation to small businesses, it is necessary to provide departmental support for that Minister. Having a special group such as the Small Business

Secretariat is one way of providing this support. Also a group such as the Small Business Secretariat is probably necessary if the government wishes to develop specific measures for small business or monitor the effects of general policy measures on small business.

The Secretariat sees its role both as an advocate for small business and as a policy advisor to Ministers. In its role as advocate, it attempts to make itself known to small business and to relay the concerns of small businesses to other relevant government agencies. In its role of advisor, it provides advice to Ministers on ways of addressing these concerns, if indeed they need addressing. There is some potential for conflict between these roles, but it is unlikely to be of such magnitude to cause concern.

ASSESSMENT

The Small Business Secretariat performs a necessary role in support of Ministers and in providing a cross-sectoral view on policies affecting small business. As no formal evaluation of the Secretariat was available, the study team is not able to comment on whether the current size and structure of the Secretariat are appropriate or not. This is a matter for decision by departmental management given the total resources available to the department. At present, however, the workload of the Secretariat is such that two extra persons from elsewhere in the department have been temporarily assigned to it.

One could question whether the Hot Line service is necessary, given that the Department has a network of regional offices; and information on government programs is available from other sources, such as the Federal Business Development Bank or provincial agencies. However, the officers involved also prepare ministerial correspondence on small business matters, the costs of the collect telephone calls from small business are not great, and there is probably a demand for the service.

OPTIONS

The study team recommends to the Task Force that the government consider maintaining the Small Business Secretariat with the resources devoted to it being determined by departmental management in light of the government's priorities.

SMALL BUSINESS LOANS ACT
(Regional Industrial Expansion)

OBJECTIVES

Although the Small Business Loans Act (SBLA) does not state an objective for the program, the program was introduced in 1961 to encourage the provision of term loans by private lending institutions to small businesses. At that time these institutions were not allowed to take mortgage collateral. This restriction was removed with the 1967 revisions to the Bank Act.

AUTHORITY

Small Business Loans Act.

DESCRIPTION

Businesses with less than $1.5 million annual sales, in the manufacturing, trade or service industries are eligible for assistance under the SBLA. Loans must be for the purpose of investments in machinery, equipment or buildings.

The number of loans made under the SBLA by private lending institutions over the last several years was as follows:

1981 = 17,409 for $517.6 million
1982 = 17,261 for $446.6 million
1983 = 25,820 for $691.1 million
1984 = 30,963 for $867.2 million

The average size of loan was $28,000 in 1984.

BENEFICIARIES

Under the present SBLA program, lenders are reimbursed fully for all loan losses on loans made under the program up to a limit of 10 per cent of the total amount of loans authorized during a specified lending period. In actuality this guarantee has provided lenders with 100 per cent recovery of losses for individual SBLA loans which have not been repaid in full by customers. In turn lenders are limited to setting interest rates on SBLA loans to prime + 1 per cent. For small business loans not made under the SBLA, rates are usually prime + 2 to prime + 2½ per cent and banks

absorb all loan losses. Thus the beneficiaries of the SBLA are both the private lenders and small businesses receiving SBLA loans. The split of the government's subsidy between these two groups has not been determined.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86
Claim Payments	25.5	64.2	46.5
Person Years	8*	8*	26

* Although only 8 person years have been assigned to administer the SBLA program, in fact the Department has had to second further resources to the program in fiscal years 1983-84 and 1984-85 due to the large increase in loan authorizations, enquiries and claims processed. (Prior to the last recession, SBLA claims were in the order of $6-10 million annually.) The 26 person-year requirement for fiscal 1986 better reflects the amount of resources required to administer the program.

OBSERVATIONS

The proportion of SBLA loans which would have been made in the absence of the SBLA guarantees is difficult to determine. A study conducted by the University of Western Ontario (UWO) under the sponsorship of the Canadian Bankers Association (CBA) in 1980-1982 concluded that there were very few differences between the characteristics of SBLA loans and non-SBLA loans. The UWO/CBA study questioned the utility of the SBLA program. However, DRIE's program evaluation done in 1981 concluded that 35 per cent of SBLA loans were incremental. The latter study also noted that 50 per cent of SBLA loans were for start-up situations.

Since both of these studies were done there has been a change in the character of the program. The volume of new SBLA loans increased by 55 per cent in 1983 and again by 25 per cent in 1984. These increases mainly reflect increased usage of SBLA guarantees by banks in their small business lending as opposed to an increase in small business lending generally. The amount of claims paid by the government has also increased from the $6-10 million range to $25.5 million in fiscal 1984 and to $64.2 million in fiscal 1985.

Legislation has been introduced to amend the SBLA. The key features are: i) businesses with less than $2 million in annual sales will qualify for SBLA loans; ii) lending institutions will be charged a one per cent of loan amount fee for use of the government's guarantee; and iii) the government will share the loss on individual loans on a 90/10 basis with lending institutions. The approximate 10 per cent limit on total government liability remains; that is the government will not be liable for more than 10 per cent of total amounts of loans authorized in any specified lending period. The legislation will also enable the government to alter the fee and risk sharing parameters by Appropriation Act.

ASSESSMENT

The original objective of the SBLA has been invalid for some time -- technically since 1967. The continual renewal of the program has been based on its popularity with small businesses and lending institutions.

Lending institutions are required by the Act to follow normal banking practices when making SBLA loans. This would imply low incrementality in the program, as was concluded by the UWO/CBA study.

Prior to 1983 banks were using the SBLA for attracting and keeping small business customers on their books -- the prime +1 per cent interest rate being the attraction feature. Since 1983 the usage of the SBLA has changed somewhat. In many instances the program is still being used as a marketing tool by banks. However, with their recent loan loss experiences the banks could be using the SBLA to make loans they would not make without the program in place; that is they would retreat from the small business loans market in the absence of the SBLA. They could also be using the SBLA to improve their loan loss positions.

The introduction of fees and risk sharing on individual loan losses will reduce the government's expenditures by about five to ten per cent.

Estimated SBLA Expenditures (millions of current dollars)

	85-86	86-87	87-88
Before legislation	46.5	50.5	52.2
After legislation	40.8	47.6	48.1

OPTIONS

The study team is of the view that the legislation is currently being prepared should be proceeded with and as of April 1, 1985 the 1 per cent fee to be paid by lenders and 90/10 risk sharing structure should be implemented. Consideration should be given two years hence to increasing the fee from 1 per cent to 1.5 or 2 per cent, to moving part or all of that charge onto the borrower, and improving the risk sharing structure to 80/20 sharing of loan losses. These changes would enhance cost recovery.

CAPE BRETON DEVELOPMENT CORPORATION
INDUSTRIAL DEVELOPMENT DIVISION
(Regional Industrial Expansion)

OBJECTIVES

To promote and assist the financing and development of industry to provide employment on the Island of Cape Breton. In accomplishing these aims the Corporation makes loans, investments and grants to business enterprises. The Corporation also owns and subsidizes operations of a number of businesses.

AUTHORITY

Cape Breton Development Corporation Act (1967-68). Its goals are to stimulate economic growth on Cape Breton Island and to expand the coal industry in the Sydney coalfield. The Corporation is divided into 2 divisions: the Coal Division and the Industrial Development Division.

DESCRIPTION

Assistance from the Industrial Development Division (IDD) is available to individuals and corporations starting or involved in a business on the Island.

The numbers of offers of financial assistance made by the IDD over the past several years were:

fiscal 1981	82	fiscal 1983	79
fiscal 1982	87	fiscal 1984	n.a.

The average size of assistance is in the range of $20,000 per offer. The IDD provides assistance to all sectors and to individuals. It also is the sole owner of three business enterprises: a real estate company, a marine farming operation and a golf course/accommodation complex. It has controlling and minority interests in other companies (number not available). Assistance is also provided to individuals in the form of student summer jobs and scholarships. Annex I provides the principal financial data for the IDD.

Since mid-1984, the IDD has had a completely new management team. A Chairperson for the Corporation has been elected and there is a new interim Vice-President (Head) of the IDD on loan from the private sector. The new management is presently conducting a company by company review of its

portfolio and has commenced selling off the IDD's interests in certain companies. They also intend to develop a strategic plan for the Corporation during the next year. In the meantime they have requested and received approval for maintaining their reference levels through 1987-88 at the $10-11 million per year level.

BENEFICIARIES

The principal beneficiaries of the IDD's activities are those persons employed by companies assisted or owned by the IDD. About 150-200 workers are hired on a seasonal basis to operate the farming and tourist subsidiaries of the IDD. An unknown number of workers are employed by other IDD assisted businesses.

It is not uncommon for the IDD to provide more than one round of financing to a business in order to keep it in operation. Also a number of loan customers are investment and grant customers.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86
Payments from government of Canada excl. Special Recovery Projects	9.1	9.4	9.5

Person years for the IDD do not appear in the estimates for the government. There are 73 persons employed directly by the IDD.

OBSERVATIONS

At the time Cape Breton Development Corporation was established in 1967 there was no mechanism within the federal government for dealing with regional/local development issues. DREE did not exist at that time. IDD was therefore established to promote alternate sources of business employment that would absorb workers expected to be laid-off as a result of the expected rationalization of the coal industry. Since then, however, federal programs with regionally differentiated (IRDP) and regionally specific (ERDA's) benefits have been established and therefore there is overlap of objectives with these programs. There is also overlap between the IDD and other federal financing programs

such as SBLA and FBDB and with provincial programs such as the Nova Scotia Development Corporation and the Nova Scotia Resources Board. The summer employment program overlaps with CEIC and the scholarship program with provincial education.

While overlap exists between the objectives of IDD and other programs, it is doubtful whether these other programs would be willing to assume all of the financing done by the IDD due to the high risk/loss feature of the latter's initiatives. This of course brings into question whether some of these initiatives should be financed at all. The high loan loss rates of the IDD, an average of $0.8 million per year on an outstanding portfolio of about $2.8 million over the last 5 years and the operating subsidies for its subsidiaries imply that many businesses assisted by the IDD are not or were not commercially viable. Loans, investments and grants to business which do not succeed do not provide any benefits to the community except recurring temporary jobs. Many of these were attracted to Cape Breton by IDD and, in retrospect, it appears that in many cases this was ill-advised. Businesses were attracted to an area away from a concentrated market for their products and the source of their raw materials. There are suggestions that efforts were concentrated more on attracting "outsiders" than on supporting local initiatives. This appears to have changed in the past couple of years. Efforts now appear more concentrated on businesses indigenous to the area. It is notable, in these regards, that the new management team expects to have new objectives for its financing operations as part of its strategic plan.

ASSESSMENT

IDD's activities can be classified into four groups: i) those which could be assumed by other federal programs (IRDP, SBLA, FBDB, CEIC), ii) those which could be assumed by provincial programs, iii) those which should not be supported and iv) those which would not be supported by either federal or provincial programs but which might warrant support given the special economic circumstances in Cape Breton. The last group is likely the largest group among the four.

OPTIONS

The study team has developed the following three options for consideration by the Task Force and government:

(i) wait until the new management team produces their strategic plan in one year's time before deciding on the future of the IDD;
(ii) wind down the operations of the IDD while still maintaining the Coal Division of the Corporation; and
(iii) wind down the operations of the IDD and replace it with an ERDA agreement for all of Cape Breton Island.

Winding down the operation of the IDD would imply no further financing by the IDD and the selling of its interests in subsidiaries and other companies. In many cases consideration could be given to transferring these interests to the province or to employees of the respective companies. Any unsold or undistributed interests could be administered by the Coal Division. The loans portfolio could be given to the province or to the FBDB for administration.

It is very likely that winding down the IDD would encounter much local opposition especially if not replaced by an alternative and highly publicized mechanism.

Keeping the IDD in place has advantages over other options. It already exists, so it would not make sense to dismantle the organization only to replace it with one that is similar. It represents a local hands-on facility wherein decisions are relatively free of bureaucratic processes, thereby allowing for faster reactions to business demands. Replacement of the IDD by an ERDA sub-agreement, for example, would likely place the management of development initiatives off the Island. It is acknowledged that the past activities of the IDD produced few successes at high costs. The new management team is aware of this and are attempting to develop new strategies for the Corporation, having learned from past mistakes. Thus, they should be given the opportunity to review their situation.

If the IDD were to be kept in place it might be desirable to have a special committee of the Board of Directors oversee the operations of the IDD. The government might be represented on this special commmittee by the Federal Economic Development Co-ordinator or by DRIE's Regional Executive Director.

ANNEX I
FINANCIAL STATEMENT

The principal financial statistics for the IDD for the fiscal year ending March 1984 were as follows: (millions of current dollars)

Fiscal 1984

Assets	**$ million**	**Liabilities**	**$ million**
Current	3.8	Accounts payable	0.7
Loans	1.8	Long Term debt	.03
Investments	.02	Equity	
Fixed	15.6	Gov't of Canada	20.4
	21.2	Total	21.1

The Corporation also had contingent liabilities for loan guarantees amounting to $61.9 million of which $49.6 million was guaranteed for Sydney Steel Corporation.

Income Statement		**$ million**
Development and operating expenses		11.2
Administration		2.4
salaries	$ 1.7	
other	0.7	
Provisions for unrecoverable loans and receivables		1.1
Depreciation and amortization		1.4
Total Operating Expenses		16.1
Revenues		4.2
Net Income (Loss)		(11.9)

UNSOLICITED PROPOSALS PROGRAM
(Supply and Services Canada)

OBJECTIVE

To encourage, in the private sector, research and development which contributes to departmental programs.

AUTHORITY

Appropriation Act.

DESCRIPTION

The Unsolicited Proposals (UP) Program was implemented in 1974 and is an adjunct to the contracting-out policy in science and technology, promulgated in 1972. The program encourages the private sector to submit, on its own initiative, proposals for scientific and technological work offering products or studies which fall within the science mission of various government departments and agencies. The end product becomes the property of the Crown. Even though the project must be of specific interest to the government, the proponent is normally expected to derive benefits in terms of new experience, know-how, etc., which often translates into new product or service sales to the government or to other markets. The program is aimed at the Canadian private sector and more specifically to small and medium sized companies.

Upon receipt, a proposal is distributed to potentially interested departments for their review and assessment. If there is interest in the proposal, all potential sponsors meet to decide whether or not the proposal can be accepted, how it can be funded and what contractual details should apply. Acceptance requires meeting the following criteria:

a. The proposal must be sponsored by a department on the basis of its scientific mission and must present sufficient priority for the department to commit itself to make the necessary budgeting provisions for directly generated follow-on costs.

b. The proposal must be judged to have scientific merit and to be technically feasible.

c. The proposal must be judged to be unique, meaning either that it offers a new and unique idea or that the proposer has a unique capability or capacity for carrying out the proposed work.

Responsibility for funding UPs rests with the sponsoring department. In many cases more than one department contributes to the project and, on numerous occasions, provincial governments and private industry also contribute.

Since the proposal was unsolicited, the sponsoring department may not have sufficient funds in its current allocation. In those cases the sponsor may draw on the Unsolicited Proposals Fund. Recently SSC has been providing, on average, 40 to 45 per cent of project costs. This percentage has been constantly declining since the Fund's inception in 1974. The Fund has been set at $15 million annually since 1979.

EXPENDITURES (millions of current dollars)

	83-84	**84-85**	**85-86**	**86-87**	**87-88**
Salaries and wages	-	-			
Other O&M	-				
Contracts	15.0	15.0	15.0	15.0	15.0
TOTAL	15.0	15.0	15.0	15.0	15.0
Person-Years	4*	4*	4*	4*	4*

* The administrative costs associated with the management of UPF are drawn from the Supply Revolving Fund and refunded by sponsoring departments as part of the procurement contract.

BENEFICIARIES

Since the inception of the program ten years ago, nearly 6,000 proposals have been reviewed, resulting in more than 1,700 contracts with a value of $224 million. The number of proposals has grown every year and now stands at approximately 700 per year resulting in 200 contracts with a value of $33.5 million. Contractors also derive benefits in terms of prestige, expertise, and technology which translate into new or increased business.

The program responds essentially to small enterprises and to proposals outside the main industrial regions. Canadian industry, including research institutions and consultants, receives additional R&D opportunities, from feasibility studies to fabrication of a prototype.

A recent evaluation of the program highlighted the fact that more than 90 per cent of the beneficiaries were 100 per cent Canadian owned and 73 per cent had fewer than 100 employees.

ASSESSMENT

An evaluation of the contracting-out policy prepared by MOSST indicated that science departments are of the opinion that the UP Program is an effective mechanism for informing government scientists of the capabilities which exist in the private sector, while at the same time acting as a stimulus to the private sector to become informed of the direction of scientific work within the government, and to some extent to influence the direction. Furthermore, it was also seen as an effective mechanism to encourage contracting-out research activities with industry. The program has given birth to a number of small high-tech firms across Canada and helped larger ones gain world-wide recognition. This is a unique program, which is well known and received by the scientific community inside and outside government. Its popularity, with more than 700 proposals a year, tends to reinforce that point. Finally, it addresses a number of the Wright Report recommendations.

Clever managers in contracting departments from time to time use the UP route to stretch their own budgets by encouraging contractors to submit proposals through the UP Program. This saves time by short-circuiting the normal requirements definition and proposal solicitation process and offers the buyer access to money from the Fund and possibly other line departments. The derogations from program objectives are, however, controlled by SSC when they become too blatant and are insufficient reason for eschewing the program's genuine benefits.

OPTIONS

Abandonment of the program would end a recognized, simple procedure for the private sector to pursue scientific and technological projects that are not only of direct benefit to the government but also result in significant private economic benefits.

Reduction in program funding is always possible, but funding has remained constant at $15 million since 1979 which is equivalent to a reduction considering inflation and the increase in the number of proposals from 549 to 682 during the last five years. In fact, there is concern that the current average UP contribution to projects has decreased from 56.7 to 42.4 per cent since 1980 because it can be argued that without a significant level of contribution from the UP program, user departments might not be willing to support projects.

Increase in program funding. The study team feels that its review tends to indicate that it would be appropriate to revisit the program funding in view of the government's commitment to R&D and to the contracting-out policy. An increase of $5 to $10 million per year would not be out of line.

SOURCE DEVELOPMENT FUND (SDF)
(Supply and Services Canada)

OBJECTIVE

To encourage the development of Canadian sources of supply for government requirements by assuming additional costs related to product development and Canadian content where there is a demonstrated long term benefit to Canada.

AUTHORITY Cabinet 1981

DESCRIPTION

Any federal department or agency with a purchase requirement that cannot be met off-the-shelf from a Canadian supplier may apply to SDF for funds to bring such a supplier to a fully competitive position. Assistance is provided through contracts let by SSC on behalf of the buying department.

The program was introduced in 1981 for three years and was subsequently extended in 1984 for one more year with $10 million in additional funding.

BENEFICIARIES

The bulk of the contracts were allocated to small and medium-sized companies, who benefit from assistance in developing products which can be sold in non-governmental markets as well as from the marketing boost offered by the fact of federal procurement. The real beneficiaries may be said to be the governmental purchasers of new (to Canada at least) products which are fully internationally competitive, ex the SDF subsidy.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86**
Contracts	8.1	10.0	0
Capital	-	-	
TOTAL*	8.1	10.0	0
Person-Years**	3	3	

* The administrative costs associated with the management of the SDF are drawn from the Supply Revolving Fund.

** This program sunsets March 31, 1985.

OBSERVATIONS

Initial expectations were that 85 percent of allotted funds would be spent on those opportunities identified in connection with major federal procurements, with the balance being spent on front-end investment aimed at developing sources for future government requirements. The actual pattern of spending has been the oposite. This makes SDF more like an industrial development policy instrument and raises the issue of program overlap, particularly with DRIE and NRC programs.

The Department argues that SDF is not an industrial or regional or small business development tool but rather a necessary adjunct of the procurement process. These other pay-offs are side benefits. In principle, this argument is not without merit, but in practice there is considerable overlap with other programming.

The Department further argues that the recent SDF evaluation showed that none of the 31 projects could have been supported by other programs. We disagree. Several could have been supported by IRAP, DIPP or IRDP. For many others the necessity of government intervention, given the costs of development, the size of the potential market, and the generosity of the tax system, is wholly inapparent.

ASSESSMENT

An assessment of SDF hangs on the question of whether Supply and Services Canada is a common service administrative agency or is a policy department with an industrial development mandate. If the former, SDF is unnecessary; any Canadian content premiums or source development would be the responsibility of the requisitioning agency, which would be expected to take into account developmental or security interests in defining their requirements. If the latter -- SSC is to be an active player in economic and regional development -- then the SDF, despite some inappropriate and not-to-be-repeated investments in its early years, is a small but useful adjunct to main-line tax and granting programs.

OPTIONS

The team sees two options for the program:

i) **Elimination:** This is not expected to cause major disturbance since it appears that many of the projects that have been supported so far could have been realized through private sector development, on occasion aided by other programs such as DIPP, IRDP or IRAP.

ii) **Consolidation with the Unsolicited Proposals Fund:** Possibly the most important aspect of SDF is its ability to help business demonstrate new technology in an operational setting thereby providing a track record to show future buyers, especially foreign ones. This is particularly important to the small business sector since it is often a critical step in market penetration. This consideration points to a new direction that SSC could exploit by placing primary emphasis on the costs related to the demonstration of innovative Canadian products from small businesses, not only in departments and agencies, but also in many Crown Corporations which currently do not use the government procurement process. This additional feature of the UP fund could be implemented at a fraction of the cost of SDF.

CREDIT REINSURANCE PROGRAM
(Regional Industrial Expansion)

OBJECTIVE

To promote the establishment, growth and development of Canadian industry by facilitating the provision of adequate long-term financing, at reasonable cost, to the junior industrial sector. One sub-objective of this program is to make funds available from pension funds, insurance companies and trust companies to junior industrials seeking term financing.

AUTHORITY

Appropriation Act.

DESCRIPTION

The program offers a single type of support, that is reinsurance of private sector credit insurance companies specially licensed by the Superintendent of Insurance. The private sector insurance companies in turn insure or guarantee loan losses arising from loans made to commercial businesses for the purposes of purchases of equipment, land, building and for refinancing and working capital purposes. Minimum and maximum terms of these loans are five and twenty years respectively.

Cabinet approved the establishment of the program in March, 1979. Treasury Board approved terms and conditions in January 1980, November 1981 and March 1983. Three private sector insurance companies have been formed. All three have suspended operations due to "market conditions". Thus, no business has been written under the program. DRIE has agreed to leave the program in place until August 1985 to accommodate a possible reactivation of insurers' operations.

BENEFICIARIES

The primary potential beneficiaries under the program would be (a) junior industrials which cannot obtain long-term financing at reasonable cost in the market and (b) pension funds, insurance companies and trust companies which would obtain an indirect outlet for commercial lending that would not be covered by their basket clause.

EXPENDITURES Nil

ASSESSMENT

At the time the program was conceived, in 1979, there was a perceived need for long-term financing for junior industrials, preferably at fixed rates. Since 1979 however, two major developments in financial markets have overtaken the need for the Credit Reinsurance Program. First, the 1981 Bank Act revisions allowed the entry of foreign banks to the Canadian commercial lending market. These banks are targetting on junior industrials as their market. Their loans are typically in the range of $0.5 to $10 million. The second development was the experience of high interest rates in mid-1981, when the prime rate reached 22 per cent, and the subsequent volatility in interest rates and in future expectations of interest rate patterns. This has led both lenders and borrowers to shorten their horizons with respect to loan terms. Floating rate loans are the norm today although lending institutions are moving back to offering fixed rate term loans with the maximum term usually being five years for fixed interest rates.

With the competitive situation in lending markets today, it will likely be difficult for private sector credit insurance companies to attract business with a risk related premium (for their loan guarantees) of 1.5 per cent as previously envisaged.

The foregoing observations on the market were confirmed by individuals in the industry. At the same time they continue to support the insurance concept as a sound one, and this should be considered in the review of other business financing activities.

OPTIONS

In the view of the study team there is no present or easily foreseeable demand for this program. It would be a simple act of tidiness were the government to announce, through the Superintendent of Insurance, that it will not accept any proposals for reinsurance of private sector loan insurance companies. This announcement could be made at any opportune time.

OVERVIEW
TRADE AND MARKET DEVELOPMENT
- International Trade -

Canada faces trade challenges in the 1980s and 1990s that will be completely unlike those we have experienced in the past twenty years. Possibilities for organizing the trade-related functions of the federal government are many and varied.

The team believes that there are organizational models which have been tried and used in other countries that should be looked at more closely to help define our best approach. The German, Japanese and British approaches are instructive. We understand that the U.S. is considering establishing a Cabinet-level trade department by putting together the various trade-related functions. A further key issue for us in Canada is to use the private sector and provinces more effectively in developing new approaches to assist in our trade activities.

The demands we are facing to continue being an effective trading nation and to develop the jobs, skills, and companies to ensure this in the future will increase in complexity. Looking at these issues only through the eyes of government officials will not serve us well. The markets and customers abroad, and our investment, technology and skills requirements at home will continue to change. Management and analytical skills, and the ability to manage change are essential. Some of these skills can be found in the private sector and must be integrated into our government trade activities -- particularly as we broaden the focus from export development to the encouragement of inward flows of investment and technology.

Since over 95 per cent of our new technology comes from abroad we must ensure that both the staffing in our posts abroad and on-post management are appropriate. At this point this is not the case although External is reviewing the issue.

Our current package of trade support and enhancement seems to have stood the test of time to date. We believe, however, that it must be more effectively targetted both in Canada and overseas. We have many departments involved in active export marketing, and a lack of effective

co-ordination. The Act gives External the lead, but leadership has to be earned through excellence. Add to this provincial disenchantment and invasion and we have an area urgently in need of reform.

The initiatives taken by the Department of External Affairs in proposing a "National Trade Strategy" and an "International Marketing Action Plan" to the First Ministers' conference in Regina is a good first step. An additional fundamental need, however, is input from the private sector. The current government's openness and willingness to entertain a dialogue on trade issues is seen by the business community as a positive step, but results are needed.

Programs

Many programs have evolved to "help" our trade efforts. The team feels that there are too many and that there is overlap both among federal government departments and with the provinces. Some of the the programs are costly and difficult to scrutinize effectively to determine cost/benefits. We have seen room for consolidation and trimming. Some of the highlights;

Trade Commissioner Services: a formerly effective government service that needs to be looked at closely to ensure it is ready for the new trade era.

PEMD & PPP: need to be consolidated, reduced and targetted.

EDC: needs more effective involvement with the private sector and reduction in overhead.

CCC: its mandate is too vague and its role should be confined to government deals; it should be responsive to private sector needs.

The other programs, which are smaller, also offer some opportunities.

Canada's overall trade activities are seen by many of our trade competitors, e.g. U.S., U.K., as being very effective. In spite of this, improvements to competitiveness can be made. Cost savings are possible, as well as a reallocation of our trade support dollars among the various programs.

A final note: five consultation documents have been issued in the past two months on trade-related matters. The private sector and provincial feedback from these will provide much useful input, and must be used to encourage government industry discussions and to develop the trade service package needed.

EXPORT DEVELOPMENT CORPORATION (EDC)

OBJECTIVES

To provide financial services to Canadian exporters and foreign buyers to facilitate and develop Canada's export trade. To put Canadian exporters on an equal footing with foreign competitors.

AUTHORITY

The Export Development Act.

DESCRIPTION

EDC is a federal Crown corporation that provides insurance, guarantees, loans, and related financial services. It was established in 1969 as successor to the Export Credits Insurance Corporation.

The services are provided on a commercial basis. Insurance and guarantee activities have full-cost recovery with premiums and guarantee fees comparable to other countries. Exporters bear 10 per cent of the risk. To meet OECD Consensus minimum interest rates, EDC may provide interest rate subsidies of up to 2 per cent.

The insurance services are to protect Canadian exporters against non-payment of foreign receivables as well as losses on bid and security instruments and foreign investments which arise from commercial and political risks beyond the control of the exporter. A variety of insurance coverages are available and premium rates are based on the type of goods, buyer and country, credit terms, spread of risks and coverage provided. If Canadian content is below the threshold level of 60 per cent, either the application is declined or the usual co-insurance ratio of 90:10 is reduced.

Guarantee services are provided for medium-term transactions to support bank financing and performance risks. Guarantees are issued to financial institutions who provide an EDC-insured Canadian exporter with non-recourse supplier financing, or provide loans to buyers of Canadian capital goods and services. Once the guarantee is in place, there is no recourse to the exporter by either the financial institution or EDC. Relative to performance risks, EDC provides unconditional guarantees which enable the insured exporter to supply the necessary securities demanded by the buyer without tying up the exporter's working capital.

Medium and long-term financing assists Canadian exporters who would normally be competitive on the basis of price, quality, delivery, and follow-up, to be completely effective in the international marketplace. The financing services are not intended to subsidize exports, but rather to help exporters compete on an equal basis with export financing services available to exporters from other countries. The financing services include loans, lines of credit, multiple disbursement agreement loans, and a note purchase program. EDC seeks to maximize the Canadian content of each transaction. In recent years the "contract level" for loans and related guarantees has averaged 80 per cent. In order to ensure that the Corporation is compensated for the non-payment risks assumed, it charges an exposure fee. The fees are intended to cover all repayment risks and vary according to country of the borrower, the borrower's status and the term of the financing. The fee is universally applied and is not negotiable.

BENEFICIARIES

Any company or person who operates a business in Canada that wants to export Canadian goods, services, or technology from Canada; foreign purchasers of Canadian goods and services.

EXPENDITURES (millions of current dollars)

	82		83		84		85		86	
	#	$	#	$	#	$	#	$	#	$
Transactions Financed										
Corporate Account	108	1,814	45	969	107	1,531				
Canada Account	2	690	-	-	3	31				
TOTAL	110	2,504	45	969	110	1,562		1,000		1,050
Insurance & Guarantees Issued										
Corporate Account	954	2,039	983	3,888	956	2,452				
Canada Account	9	306	5	9	62	221				
TOTAL	963	2,345	988	3,897	1,018	2,673		2,705		2,910
Net Income		1.1		2.0		6.0		1.0		2.0
Person Years		613		610		577				

OBSERVATIONS

EDC has a virtual monopoly over the private sector on subsidized export financing, which is not necessarily the case in most other countries. When EDC rejects a transaction because the terms or amounts exceed its guidelines, but the government believes it is in the national interest to accept it, then EDC will manage the transaction for the government on its "Canada Account" (two per cent of transactions were financed through this account in 1984, zero in 1983, and 28 per cent in 1982). Of the financing applications processed in the last few years, only 10 to 20 per cent eventually receive EDC assistance. The other 80 to 90 per cent either fail to qualify or are withdrawn for a number of reasons. The successful transactions amount to only 5 per cent of Canada's exports.

The federal equity of $854 million has no return and as such provides a $128 million/year subsidy (at a 15 per cent interest rate). The equity includes $194 million of retained earnings. There are no objectives or guidelines to determine whether or not EDC is doing a good job. The fact that its profit for the last four years has been between $1 and $6 million may or may not be a good thing.

A review of EDC's staffing for the last three years shows that 40 per cent of the staff is in operations (i.e. directly involved in export financing and insurance) and 60 per cent of the staff is what could be termed "overhead" (i.e., finance and collection, corporate affairs, human resources, administration, legal services, and internal audit).

A recent study has shown that over an 11 year period EDC has directed a large percentage of its loan financing through a relatively few companies. One company represented 25 per cent of all the financing, and another company represented 40 financing arrangements. It therefore appears as though some companies may have adopted EDC as a basic financing vehicle although we recognize that they do represent many small companies in some cases. For 1984, 95 per cent of the financing agreements, representing 97 per cent of the dollars went to Ontario and Quebec - not

unexpected given the concentration of industry. Insurance coverage was slightly more widely distributed across Canada with Ontario and Quebec only accounting for 75 per cent of the policies and 57 per cent of the dollars, which reflects the influence of EDC's regional insurance offices.

It is disconcerting to see that some of the large companies who receive direct subsidies through various government grant programs also receive indirect subsidies through EDC.

Although EDC may be meeting its mandate, a number of issues were noted:

a. The recent Government of Canada consultation paper on export financing and studies by the Economic Council of Canada and the Royal Bank have recommended that there be increased private sector involvement in export insurance activities and increased involvement by banks and other financial institutions in medium-and long-term export financing.

b. Since EDC has a very narrow regional network and is encumbered by tight centralized procedures, a number of export opportunities are probably lost. This may be due to slow reaction time by EDC, not knowing the market, or an unwillingness to meet the competition head on. Because of the private sector's worldwide financial network, the private sector gives broader coverage and can probably deliver faster. This could also result in increased business.

Although the banks have indicated that they are prepared to assume EDC's financing role and the work volume could be absorbed by their present staff, we do not know whether the banks would be more or less expensive. Also, the banks might be tempted to go after less risky business; however EDC has also been accused of this.

Studies have shown that Canadian support of exports lags behind that offered by France, the United Kingdom, West Germany, Japan and the United States. The percentage share of exports supported by Canada is about 10 to 20 per cent of

most of its major competitors. Most of our competition also provides insurance against foreign exchange risks, cost overruns and inflation. We also understand that some countries provide special unofficial benefits (i.e. training and education). The only partial offset that EDC appears to offer is that the terms to maturity of its loans are longer than those of its competitors.

ASSESSMENT

The basic question that must be addressed is "Do we subsidize to match foreign export subsidies or to save a business from going under or don't we?" If government decides that we will subsidize, then we must determine what vehicle to use.

EDC and the private sector have been discussing the degree of private involvement for many years. It appears as though they have not taken each other seriously and little advancement has been achieved.

Given that a government may want to subsidize exports, there is no clear evidence that it is cheaper to finance them through the public sector than through the private sector. Also, there is no direct evidence today that there is any gap in export financing or insurance by the private sector. However, to the extent that the export insurance must be placed offshore, there may actually be a lower net cost to Canada.

Although EDC can provide evidence that its support of export financing generates more benefits than typical governmental expenditures, we have some concern with the evaluation. EDC's reasoning is based on the assumption that concessionary financing is truly incremental (i.e. the financing was needed to generate the export sales). It is not clear that this is a valid assumption.

OPTIONS

As the discussions on the Consultation Paper on Export Financing have yet to take place, it would be premature to recommend options at this time.

Nevertheless, the study team thinks that the Task Force may wish to reflect on some of our observations, namely:

1. the limited access to EDC financing, because all arrangements must be approved in Ottawa;

2. the slow turnaround time on negotiations, as all arrangements must be discussed with Ottawa;

3. the apparent concentration of financing arrangements in Ontario and Quebec;

4. the perfectly legitimate, although somewhat contentious, ability of companies to stack financing assistance, tax benefits and several grant programs; and

5. the high levels of EDC staff relative to the volume of business that is managed.

DOMESTIC INFORMATION SERVICES (DIS)
(External Affairs)

OBJECTIVES

The major industry-related objective is to assist Canadian companies by providing them with information on matters related to trade and export marketing opportunities, sensitivities and constraints, and to international industrial developments. Other broad objectives include increasing public interest in foreign affairs and foreign policy and sensitizing Canadians to international travel.

AUTHORITY

Appropriation Acts.

DESCRIPTION

The main activities of DIS include:

1. developing written communications programs on export-related matters and distributing written material to Canadian companies on its distribution list and to departments with trade interests. Written material includes CanadExport (newsletter), brochures describing programs and services available to industry, and a variety of pamphlets;

2. preparing brochures, exhibits, audio-visual material, pamphlets and other publications for distribution at domestic trade fairs and export-oriented seminars;

3. providing prepared written information in response to requests from Canadian companies interested in trade, special interest groups, etc.;

4. preparing trade promotion advertizing; and

5. administering grants to various international relations/affairs institutes (national, provincial, regional and academic).

In the regions, DRIE offices make DIS material available to Canadian firms upon request, and distribute DIS material for domestic trade fairs, seminars, etc.

BENEFICIARIES

Canadian companies, particularly exporters, academic institutions, students, legislatures, special interest groups, etc.

EXPENDITURES (millions of current dollars)

	83-84	**84-85**	**85-86**	**86-87**
Salaries	n.a.	0.3	n.a.	n.a.
O & M	0.2	1.7*	1.5	n.a.
Grants	0.1	0.1	0.1	0.1
TOTAL	n.a.	2.1	n.a.	n.a.
Person years	8	14*	14	n.a.

* Relates to a person-year increase of 3, and a redeployment to DIS of 3 staff undertaking related work.

Observations

Within EAC, the information function is divided. DIS, an Information Group in Export Marketing, and an Export Information Desk report to three different responsibility centres, and trade publicity abroad is handled in a number of different divisions. All are service functions operating in response to requests from various EAC Branches and Divisions. It is not clear that this activity is coordinated and there may be some duplication. Provinces also provide trade related information for Canadian companies but the degree of overlap is not known.

A September 1984 internal review of EAC's performance in providing information to domestic audiences concluded that the task of providing information to Canadians had not generally been accorded a high priority. Proposals to improve performance were made, including the need to develop a more explicit and effective long term strategy, to assess the usefulness and impacts of existing programs, and to ensure that duplication in the preparation and provision of information within EAC is avoided.

An external survey to determine readership opinion of CanadExport -- one of the most important DIS outputs -- concluded that the majority of readers found the publication useful (particularly information on trade opportunities), timely and relevant. In addition, circulation had risen over a one year period from 4,500 to 23,000 as a result of increased demand. Program management hopes to continue to maintain reader interest, but points to the need for improved information flows from EAC's Trade Divisions and from posts abroad in order to do so.

DIS receives written requests for information reaching a peak of 200 per week, together with 50 telephone calls per day, after EAC's Trade Month promotion -- an activity not dealt with by DIS.

Program management is aware of the need to set priorities within EAC in its information programs. Program management is also cost conscious and has introduced changes leading to cost reductions and increased efficiency.

ASSESSMENT

The rationale for a domestic information service is valid; the rationale for providing grants to various centres for international relations is less so and the impact and usefulness of this activity should be reviewed.

Though information on total program effectiveness is limited, the CanadExport newsletter is judged to be a success. A review of some other material produced by DIS indicates that it should be useful to potential exporters. EAC is aware of the need to determine the impacts of its information activities on intended clients.

It should be noted that DIS used a private sector company directory rather than DRIE's Business Opportunities Sourcing System (BOSS) as a basis for its distribution list. It is suggested that DIS try the BOSS system to increase its distribution, and conversely that BOSS contact on companies on the DIS distribution list to ascertain their interest in registering with BOSS.

OPTIONS

The study team recommends to the Task Force that the government consider continuing the program at its current level, but undertake an evaluation of all EAC's information activities by November 1985 to assess their effectiveness and efficiency and to ensure that the current organizational structure for the provision of information is optimal. In addition, consider introducing a means of establishing department-wide priorities for information services.

CATALYTIC SEED FUND
(External Affairs)

OBJECTIVE

To assist Canadian scientists and engineers to develop and expand working contacts with technical experts in other countries for the purpose of collecting information on emerging technologies of benefit to Canada.

AUTHORITY

Cabinet 1982

DESCRIPTION

The Catalytic Seed Fund (CSF) helps to defray some of the costs of:

meetings of experts in Canada to identify and plan international initiatives in specific sectors and with specific countries;

short-term exploratory missions and visits by individuals and small groups of experts to initiate international collaboration;

medium-term working visits up to five months to allow Canadian scientists and technical experts to work in foreign laboratories or research establishments on promising collaborative activities; and

in-depth studies of foreign technology judged to be of high actual or potential economic benefit to Canada.

CSF is intended to support only a portion of the cost and will normally reimburse air fare costs, and in the case of medium-term working visits, up to $1,200 per month toward living expenses. In this way the participating organization also has a cost commitment.

BENEFICIARIES

Small and medium sized Canadian organizations involved in new technologies.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86
Salaries	-	-	
Other O&M	0.1	0.3	0.3
TOTAL	0.1	0.3	0.3
Person Years	3	3	3

OBSERVATIONS

The program is designed to assist in transferring technology to Canada and is used as a mechanism to supplement funds provided by the participants. Applications are reviewed by a Working Group on International Collaboration in Science and Technology, which consists of representatives of NRC, External Affairs and MOSST.

There appears to be overlap between this program and the International Collaboration Assistance Fund for Research on New Information Technology currently in the Department of Communications.

ASSESSMENT

The program was initiated only last year and there is insufficient feedback to assess effectiveness. It does, however, report within the Technology of Investment Bureau of External Affairs which has science counsellors abroad and has the practical objective of bringing from abroad to Canada science and technology with economic benefit.

OPTIONS

The study team recommends to the Task Force that the government consider the following measures:

- Continue with the program within External Affairs. It is administered in the appropriate area considering that the Technology and Investment Bureau has a basic objective to transfer technology to Canada.

- After a reasonable period, an independent evaluation should be performed to determine program effectiveness.

- Integrate the International Collaboration Assistance Fund of DOC with this fund.

PROGRAM FOR EXPORT MARKET DEVELOPMENT (PEMD)
(External Affairs)

OBJECTIVE

To help develop sustained exports of Canadian goods and services by sharing financial risks with businesses who wish to enter the export market or with businesses already established in the export market who wish to expand into new markets.

AUTHORITY

1971 Treasury Board Approval; Appropriation Acts.

DESCRIPTION

PEMD is the largest single trade promotion assistance program, providing assistance of up to 50 per cent -- repayable if the firm's efforts are successful -- under the following section headings: A: export project bidding; B: market identification trips; C: trade fair participation; D: incoming foreign buyers; E: formation of export consortia; F: establishing in a foreign market; S: export-related activities of non-profit organizations; and R: agriculture, fish and food. Over the life of the program (1971-84) $110 million has been expended, with export bids aid accounting for 46 per cent, trade fairs 24 per cent, and market identification 18 per cent.

Summary of Operations

	81-82	82-83	83-84	71 to 84
Applications receive	4,200	5,538	5,593	33,503
Applications approved	3,096	3,998	4,098	24,000
Amount approved ($ million)	30.9	41.1	42.0	207.7
Amount spent ($ million)	12.8	20.9	27.0	110.1
Average contribution ($ thousands)	2.4	5.2	6.6	4.6
Reported sales ($ million)	306	493	1,348	6,660

BENEFICIARIES

PEMD's beneficiaries are not the smallest businesses, for whom export marketing is often difficult, but medium size and larger enterprises. Only half the applications come from companies with less than $2 million in sales; these companies receive 30 per cent of PEMD funds. The markets to which these companies are steered differ from the average composition of Canadian exports, with only 30 per cent of effort devoted to North American markets. Both these characteristics of PEMD may be appropriate in that the initial entry by a growing business into markets beyond its unaided reach may be the right niche for public funding.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86
Salaries	0.6	0.6	0.6
O&M and Capital	0.6	0.6	0.6
Contributions*	27.0	31.0**	35.0**
TOTAL	28.2	32.3	36.2
Revenue	1.3	0.9	1.1
Person Years (est.)***	15	15	15

* Includes dedicated funds for PEMD Fish ($20.5 million) and Urban Transit ($2.5 million) for the period 1983-84 to 1987-88.

** Excludes $3 million 1984-85 Supplemental Estimates.

*** PEMD Headquarters program staff only. Excludes DRIE Headquarters and regional staff involved in program delivery (estimated at between 50 and 70), EAC posts, and EAC Bureau and system maintenance staff (9).

OBSERVATIONS

There is considerable overlap between PEMD and Promotional Projects Program (PPP), which provides contributions for participation in trade fairs and missions and for trade visitors; the difference is that PPP requires an invitation from EAC whereas PEMD requires an application to EAC. Moreover, some

sector-specific departments such as Agriculture or Communications have established their own export marketing groups. Forestry is served (currently in British Columbia only) by DRIE's Cooperative Overseas Market Development Program, a joint program involving the federal and provincial governments and a forestry industry association. There may also be overlap with CIDA's Industrial Co-operation Program, though goals differ. In addition, portions of smaller programs share PEMD goals: book publishers and film and video makers also have their own special wickets. To the degree that all export efforts are worth supporting in relation to the present value of the expected benefits, the rationale for continuing the separate existence of these programs, or of sectoral windows like PEMD-R within the Program, needs serious examination.

All provinces have trade promotion activities which include assistance for trade fairs and missions, incoming buyers, market identification trips and market and feasibility studies. Some provinces (including Ontario and Québec) have assistance for consortia formation and bidding assistance. Moreover, in the case of small companies, provincial programs are considered generally more responsive than federal programs. Provinces claim their efforts complement rather than duplicate PEMD, but this distinction is hard to see in practice. Stacking appears to occur in some cases. Provinces devote a total of $35 million to these activities compared to PEMD's $32 million.

Program evaluations indicate that the greatest returns in incremental sales come from project bid assistance and foreign buyers visiting Canada. The lowest returns come from assistance to establish facilities in foreign markets, for marketing and other feasibility studies, and for fish, food and agricultural projects. While these relative indicators of incrementality are probably meaningful, no credence can be given to the absolute figures reported for incremental sales, nor can any numbers be attributed with confidence to PEMD alone.

Only a small number of projects report sales, and monitoring is insufficient. In point of fact, the repayable feature of the program design is intended mainly to forestall GATT challenges, and the cost of enforcing repayment is thought to approach the likely proceeds.

Client Views. A 1979 Export Promotion Review Committee report (the Hatch Report) judged PEMD to be successful, but noted procedural problems. PEMD evaluation reports also found that program modification to increase efficiency was required, and a 1984 DRIE internal audit report found the program complex and labour intensive.

There is private sector support for the program. The Canadian Export Association, however, suggested that, in the case of companies with taxable income, a special income deduction for export development costs would provide a greater incentive to enter new markets than PEMD. The use of tax incentives for exports, also suggested in the Hatch Report, may warrant further review, but implications for GATT would have to be considered as would the costs in revenue foregone and staff to implement them.

A 1983 Federal Provincial Workshop on Export Trade Development judged that most sections of PEMD had met the important requirements of exporting companies, with the exception of the need for support for a market development phase to follow initial market identification. Other suggestions for increasing PEMD effectiveness included: DRIE regional offices should undertake trade initiatives using PEMD-C, particularly to nearby U.S. markets; provision of proof of prior contact with appropriate posts abroad should be a condition of project approval; variable sharing ratios should be introduced (e.g., shares of large multiple users would increase); and assistance should be provided to firms to hire export managers and to supply demonstration and testing units. These suggestions should be given serious consideration by PEMD management.

The recommendations by the Task Force on Trading Houses regarding the treatment of Trading Houses under PEMD should be considered.

ASSESSMENT

The demand for free goods always outpaces supply. Only in this sense can the program, which quadrupled in size from 1980 to 1984, be considered demand driven. PEMD and similar federal activities now constitute a considerable subsidy to exporters with a return, in incremental sales, which cannot be measured but is clearly much less than the numbers claimed by program managers and inhouse evaluations.

These subsidies are in principle GATT-able; it may be that the twin fig leaves of repayability and invisibility -- putting the export promotion eggs into many small baskets -- are necessary to avoid countervail. On the other hand, Canada's risk in that area would likely be reduced if program consolidation were accompanied by visibly reining in total expenditures. Consolidation should also economize on overhead, lead to somewhat improved cost recovery, and lead to an allocation of public funds to projects most likely to produce high returns in export sales.

OPTIONS

The study team recommends to the Task Force that the government consider consolidating PEMD and PPP with the following modifications:

a. concentrate assistance on medium-sized exporters with good growth potential moving into targetted export markets for the first time, and on bid support and trade visitors;

b. reduce sharply allocations to PEMD-B and PEMD-F and tune selection criteria more finely;

c. cap the programs at 70 per cent of 1984-85 aggregate expenditures; and

d. hold program management accountable for a 30 per cent decrease in overhead expenses and a considerable increase in cost recovery by 1986-87.

As part of this overall streamlining, a diminution of provincial duplication in this area of federal responsibility could be sought in federal-provincial economic consultations.

In addition, a review should be made to determine the benefits derived from having a general PEMD program, a series of PEMD sector-specific sections, and separate export-marketing programs in a number of federal departments. (See separate note on the International Trade Development Program and the Trade Overview.)

PROMOTIONAL PROJECTS PROGRAM (PPP)
(External Affairs)

OBJECTIVE

To develop export sales for Canadian companies by planning and funding exhibits at trade fairs abroad, outgoing and incoming trade missions and incoming trade visits by foreign buyers and government delegations.

AUTHORITY

Appropriation Acts.

DESCRIPTION

This is the annual funding source for some 170 trade exhibits outside Canada, 75 outgoing missions and seminars and 150 incoming missions and visits by foreign delegations. These events are planned in conjunction with the provinces and other federal departments to service the export marketing activities of Canadian industry as well as to meet specific federal trade development objectives. Canadian exporters are recruited to participate in overseas fairs and missions. Foreign businesspeople and government trade officials are invited to participate in incoming buyers' missions. Approximately 2,000 Canadian industry representatives and 1,500 foreign trade visitors participate annually, and costs such as airfare, shipping, or space rental are reimbursed to different degrees based on the activity involved.

Central program administration within External Affairs is provided by the Fairs and Missions Division of the Export Marketing Bureau in accordance with policy guidelines from the Interdepartmental Committee for Trade Promotion Program Management which is chaired by the ADM, International Trade Development. Membership includes representation from DRIE, CIDA, EDC, Agriculture, Communications and Fisheries. Outside Canada, EAC's posts provide input and assistance.

Beneficiaries

a. Trade Fairs: Eighty per cent are manufacturing companies; half have sales under $5 million per year; the majority are from Ontario and Quebec.

b. Trade Missions: Fifty per cent are manufacturing companies, 15 per cent primary producers and the remainder service companies. These are principally large companies with average sales of $130 million.

c. Visitors: Foreign delegations selected by department officers and coming, for the most part, to visit potential Canadian suppliers and federal and provincial government officials.

EXPENDITURES (millions of dollars)

	1983-84	1984-85	1985-86
Operating Expenditures			
Salaries & Wages	2.0	2.0***	2.8
O & M*	9.5	15.7	15.2
TOTAL	11.5	17.7	18.0
Revenues			
Person Years**	42	42	42

* In addition, SSC's Canadian Government Exposition Centre dedicates between $0.6 and $1 million of its budget to PPP fairs and missions.

** Excludes EAC person-years devoted to trade publicity, SSC Exposition staff, and EAC post staff.

*** Estimate.

OBSERVATIONS

It is difficult to quantify direct sales and jobs generated by a program like this. This investment of time and government funds could be looked on as national marketing overhead like institutional advertising or sales promotion. As such, the allocation is always hard to justify since specific outcomes cannot be unambiguously associated with the expenditure. External's claim that $71 dollars in export sales resulted from each PPP dollar in 1983-84 -- up from $40 in 1981-82 -- is difficult to support or refute. Sales are likely to result from fairs and missions; however such sales could also occur as the result of privately financed visits abroad.

An outside evaluation of the PPP program was made by ERA consultants in 1979. Its general conclusions, based on discussion with the users, were that this was a useful and effective program. It did point out areas for improvement, especially in the selection of specific projects for support and in monitoring and control procedures. Some follow-up seems to have been done.

There is some overlap with PEMD, and duplication of PPP-type activity by the provinces.

A 1983 Federal-Provincial Workshop on External Trade Development suggested that PPP effectiveness could be improved if both DRIE regional offices and the provinces were involved in recruiting participants. This might also reduce federal-provincial duplication. It was also suggested that EAC posts have independent funds to use at their own initiative (for example, for regional fairs).

More than half the participants in this program had been introduced to it by a government representative. This reflects the private sector's passive attitude toward these types of promotional events. Efforts have been made to publicize these events in advance to increase private sector interest. The impacts of these efforts is not clear.

This program has grown to where it now takes 42 person-years to deliver its benefits. This issue of delivery cost has not been recently reassessed.

ASSESSMENT

Despite the difficulty with the numbers and the worry about high overheads, the program has merit in the eyes of its clients and probably increases exports. Abandonment is thus unattractive, as is, for different reasons, the substitution of a tax incentive. The tax system cannot organize special projects involving many Canadian companies, and any but the most carefully circumscribed incentive could lead to GATT problems. Improvements in capital allocation and administrative efficiency would, however, be the logical outcomes of consolidation and a higher degree of cost recovery.

OPTIONS

The study team recommends to the Task Force that government consider consolidating PPP with PEMD with the following modifications:

a. improve target selection, based on relative returns and consultation with the private sector, coupled with an overall cutback on program expenditures; and

b. phase in a degree of cost recovery.

No special implementation problems are foreseen. Further information on the resource requirements of the consolidated program is given is given in EAC 11, PEMD.

INTERNATIONAL TRADE DEVELOPMENT PROGRAM (ITD)
(External Affairs)

OBJECTIVES

To increase the quantity and quality of Canadian export markets and to co-ordinate the delivery of the Tourism program abroad. A second objective is to attract foreign investment to Canada.

AUTHORITY

Export Development Act, RSC 1970, CE-18.

DESCRIPTION

The ITD provides support for Canadian companies involved or wishing to become involved in exports: analyzes, formulates and coordinates policy initiatives; and attempts to match foreign market opportunities with Canadian industrial capability and capacity.

Activities include:

- provision of advice on marketing strategies and information on trade, business and financial conditions abroad;

- gathering of foreign market information by calling on prospective buyers, distributors, and manufacturers of Canadian products or services;

- arranging business meetings between Canadians and prospective foreign business contacts; and

- provision of information on the laws and regulations of foreign nations.

ITD encompasses PEMD, PPP, Defence Programs and the Trade Commissioner Service. It also provides special marketing support for agriculture, fish and food and for specific projects such as Telidon; delivers the Tourism program abroad (on behalf of DRIE); and is the focal point for co-ordination of major overseas projects. This assessment deals only with the Trade Commissioner Service.

BENEFICIARIES

Canadian companies.

EXPENDITURES*** (millions of current dollars)

	84-85 Forecast	85-86 Main Estimates
Salaries and wages	44.2	45.4
Other O & M	26.5	28.3
Grants/Contributions	1.5	1.1
Capital	2.2	3.0
TOTAL	74.4	77.9
Person Years	453	437

N.B. It is not clear how the 592 person years are distributed.

*** Excludes expenditures and person years devoted to PEMD, PPP, Tourism and Defence Programs. Excludes DRIE trade commissioners in regional offices. For further details on resources, see Appendix 1, which follows this assessment.

OBSERVATIONS

Since the transfer of responsibility for trade development to External Affairs Canada (EAC) in 1982, there have been changes to what was formerly called the Trade Commissioner Service, which have resulted in a number of problems. An assessment of the Trade Commissioner Service (TCS) prepared by the Canadian Chamber of Commerce and the Canadian Export Association in 1982 pointed out some of the shortcomings of the integration from the point of view of the private sector. Perceived problem areas included low morale because of confused objectives; insufficient time for "Trade Commissioners" to spend on commercial activities because of new roles; a preference in hiring recruits with political science rather than business backgrounds; and discrimination in the foreign service exams against people with non-political science backgrounds and education.

Private sector companies feel that the staffing of the Trade Commissioner posts has tended towards trade generalists rather than marketing and sales personnel as was the case in the past. EAC has attempted to fill this gap to some extent by hiring local personnel with specialized country knowledge to provide more information on these markets. More of this will be required, particularly if we wish to provide market information to small and medium sized companies in Canada, who need this knowledge.

Overlap and duplication has developed in the past few years between EAC, Agriculture, Fisheries and Oceans and other federal departments in the area of marketing support and promotional activities in foreign markets.

As well as interdepartmental duplication of effort, there is federal/provincial overlap. Most of the provinces have at least one international office in London, England. Alberta, Saskatchewan, Ontario and Québec maintain a more extensive network. Alberta and Saskatchewan each have four international offices. Ontario maintains 18 offices in Europe, the U.S. and the Pacific Rim, and Québec has 17 offices in North America, Europe, Asia and Latin America. Although the federal and provincial offices generally maintain a co-operative working relationship, it is inevitable that their activities will occasionally conflict. Counselling and providing information to Canadian companies who could potentially export is offered by all provinces and the federal government.

Many of the small and medium sized companies have not become effective exporters. This is because of a lack of time, expertise, financing, and understanding of markets. Educational efforts, visits by government officials, and trade promotion drives heighten interest but do not have a lasting effect. A package of services is needed to effectively serve these companies. The "Trading House Option" published by the Trading House Task Force in November, 1984 provides concrete examples and recommendations for using this mechanism to increase export effectiveness. There are probably other options that should be assessed.

Information flow is seen to be a problem, between the posts abroad and EAC Headquarters and DRIE, and vice-versa. Moreover, information flow between posts and the private sector could be improved.

Canadian private sector exporters are concerned that EAC may orient the TCS towards the attraction of new investment and technology to Canada, rather than their more traditional export promotion role; EAC is aware of this concern.

ASSESSMENT

Recruiting for "trade commissioner positions" calls for a close review of the business capabilities and orientation of the people to be placed in these positions. Training, orientation, visiting and working with Canadian exporting companies are all essential to providing the support required. An increased knowledge of Canadian industrial sectors and regional differences seems to be required.

There are opportunities for small and medium sized companies in export markets. The quality and quantity of market information about these opportunities usually varies by country and by post. Feeding this information from foreign markets to Canadian suppliers has always been a challenge. The advent of stiffer competition and currency value fluctuations has made this more critical. A reassessment is needed by a combined DRIE/EAC team with small and medium size company input to ensure effective development and delivery of this information.

There may be an opportunity to develop a private sector sourcing system of foreign market information for small and medium sized Canadian companies in addition to what is currently provided by the federal and provincial governments. Several countries to which Canada could export have private sector networks of Chambers of Commerce, regional trade organizations, associations of manufacturers etc. Canada likewise has a widely disbursed group of Chambers of Commerce and Canadian Manufacturing Association (CMA) regional and provincial bodies. A way of linking the foreign and Canadian groups to provide information on foreign markets and Canadian export capabilities should be examined. The CMA and the Chamber of Commerce and the Canadian Export Association should be approached for individual or joint proposals.

The overlap at the federal level is needless, ineffective and expensive. It would be sensible to keep the marketing expertise, contacts, and responsibility in one place, directed by EAC, which has the mandate for international trade activities. The specialized technical skills and knowledge of the particular departments, however, should still be tapped. The roles of other departments engaged in export marketing and development should be

reviewed in order to determine the most effective method of carrying out the export marketing and development function at the federal level. Handling the provincial overlap problem calls for a review and negotiation with them under the direction of EAC.

Canada's trade development and export capability prospects can be enhanced by careful and selective use of ministerial, federal and provincial trade missions. This, however, must be done with marketing skill, and careful planning. The current situation with some 30 trade and similar missions planned by Canada to China in 1985 is somewhat ludicrous and places an unnecessary burden on the Trade Commissioners. A review and agreement between the various federal and provincial agencies is essential; EAC is currently considering measures to improve this situation.

The name "Trade Commissioner" needs to be reemphasized. It should be highlighted to reconfirm the importance of the role, to help rebuild morale, and to show the exporting community the importance of this function.

There is a need for a commercial intelligence-gathering function which requires input from abroad and there are obvious economies of scale to be achieved fromhaving the entire service undertaken by a single organization. The depth of intelligence required and the complexity of each country's structure and its economic importance to Canada should determine the amount of trade resources allocated to posts. A review of the posts abroad is needed, highlighting the countries with current and future sales opportunities. Coverage by Trade Commissioners in posts should only be continued if there is obvious future potential for trade.

If the TCS were disbanded without some effective replacement there would be an outcry from Canadian exporting companies. In the short and medium term, many companies' export interests and business would be compromised.

OPTIONS

The study team submits the following suggestions for consideration by the Task Force and government:

1. Continue with the program. Responsibility should remain with EAC to avoid further disruption.

2. Determine how the trade commissioner service can be improved and where the resources should be placed. A review board such as the Export Trade Development Board with provincial and private sector input should examine the present needs of Canadian exporters and review operations of the TCS with a view to making it more effective in today's trading environment.

3. Examine, on an urgent basis, the question of apparent duplication or overlap which exists between EAC's export marketing and development activities, and those of sector-specific departments (such as Agriculture or Communications) and CIDA's Industrial Cooperation Program, to determine the most effective and efficient use of resources (i.e. centralization or sector-specialization).

4. Review, on an urgent basis, current inefficiencies in linkages between EAC and DRIE and introduce measures for improvement.

APPENDIX 1

EXPENDITURES (millions of current dollars)

	Salaries	O&M	Capital	Grants & Contrib.	Total	PYs
A. EAC Headquarters - Trade Development Assistance Program						
	5.4	3.2	-	1.1	9.7	102
B. EAC Headquarters - Geographical Branches						
Africa	1.0	0.1	-	-	1.1	20
Asia	2.0	-	-	-	2.0	32
Europe	1.3	-	-	-	1.3	26
Latin America	1.0	-	-	-	1.0	24
USA	1.5	1.0	-	-	2.6	29
TOTAL	6.8	1.1	-	-	8.0	131
C. EAC Posts Abroad - Resources dedicated to the Trade and Industrial Development Program						
USA	2.8	5.3	0.1	-	8.3	43
Latin America	3.4	5.6	0.7	-	9.7	51
Europe	6.1	9.6	0.6	-	16.2	99
Asia	4.8	6.4	0.5	-	11.7	71
Africa	3.8	5.2	0.7	-	9.6	56
TOTAL	20.9	32.1	2.6	-	55.5	320
Grand Total	33.1	36.4	2.6	1.1	73.3	553

DEFENCE PROGRAMS
(External Affairs)

OBJECTIVE

To expand markets for Canadian defence products and related high-technology products.

AUTHORITY

The Defence Production Act, 1951, and External Affairs Act, Bill C152.

DESCRIPTION

Defence programs are the responsibility of the Defence Production Branch of External Affairs. The Branch is responsible for the development of export markets for Canadian defence and related high technology products. The program involves direct negotiations with foreign governments for market access and with foreign military and defence industry personnel for cooperative projects and product promotion. The most important bilateral activity of the program is management of the Canada/USA Defence Development and Defence Production Sharing Arrangement. Total defence exports in 1983 were $1.5 billion, of which $1.2 billion were to USA.

The Branch also manages eight additional bilateral Research Development and Production Agreements, is the official record keeper of defence trade statistics, is the market adviser member of the Defence Industry Productivity Program Committee, participates on behalf of EAC in "offsets" recommendations and evaluations associated with major defence purchases, processes PEMD applications for defence-related projects and organizes and leads incoming and outgoing specialized trade missions and conferences.

BENEFICIARIES

Canadian manufacturers of defence and related high-technology products. The Canadian defence industrial base comprises 250 to 300 firms employing approximately 35,000 people. Over 50 per cent of the industry is U.S.-owned.

EXPENDITURES (millions of current dollars)

	1983-84	1984-85*	1985-86**
Salaries and Wages	1.7	1.9	1.9
O&M	0.8	0.8	0.8
TOTAL	2.5	2.7	2.7
Person Years	32	36	36

* Forecast
** Main Estimates

OBSERVATIONS

This is a unique program designed to address a unique, specialized and highly competitive market sector, where it is necessary to deal government-to-government. This requirement has not changed since the program was established in 1963, nor are foreign governments likely to want any changes in the foreseeable future.

ASSESSMENT

Since the private defence industry knows that it must have government representation when dealing with other countries, there is an opportunity for this program to recover all its operating costs from the private sector. If this was a private organization representing this industry, it would have no difficulty in developing a very profitable operation.

OPTIONS

The study team recommends to the Task Force that the government consider maintaining this program on the basis of full cost recovery.

TRADE PUBLICITY PROGRAM
(External Affairs)

OBJECTIVE

To promote sales of Canadian goods and services abroad.

AUTHORITY

Appropriation Act.

DESCRIPTION

The program is designed to support the departmental mandate to promote international trade, and consists of the following activities:

a. advertising abroad - to present Canada as a desirable trading partner and to promote sales of Canadian goods and services, including high technology ($0.4 million);

b. trade fair publicity - to support the participation of Canadian companies at international trade fairs through publicity material prepared in consultation with participating companies and other federal departments ($0.6 million);

c. Canadian Trade Centre in Tokyo - to provide publicity and promotional support to Canadian firms taking part in monthly industrial shows in Japan ($0.2 million); and

d. Purchase of Trade Indexes and Promotional Items - for use by Canadian offices abroad in promoting export trade ($0.2 million).

BENEFICIARIES

The Canadian business community.

EXPENDITURES (millions of current dollars)

	83-84 Expenditures	84-85 Main Estimates	85-86 Main Estimates
Salaries	0.2	0.2	0.2
O & M	1.3	1.3	1.3
TOTAL	1.5	1.5	1.5
Person Years	5	5	5

OBSERVATIONS

Evaluations of this program show that for every $1.00 spent on trade publicity abroad, especially in trade fairs, there is a $75.00 return on average in on-the-spot or eventual sales.

The Trade Centre in Tokyo was established in 1979. Exhibit space is provided free of charge to various countries, including Canada, by Japan. Since 1979, the Canadian government has spent a total of $0.9 million to maintain Canadian participation in this centre. Seventy industrial shows have been held and Canadian firms have, as a result, realized over 100 million dollars in sales of Canadian goods and services in Japan.

EAC has a number of groups involved in the provision of information; there may be some organizational inefficiency.

ASSESSMENT

This program provides a useful service to Canadian companies by coordinating publicity efforts relative to trade fairs and by promoting knowledge of Canadian companies, goods and services abroad. Reference is made, however, to the separate note on DRIE's Business Opportunity Sourcing System.

OPTIONS

The study team recommends to the Task Force that the government consider maintaining this program but that it be included in the suggested review of all External's information services. (See section on Domestic Information Services).

COST RECOVERABLE TECHNICAL ASSISTANCE PROGRAM (CRTA)
(External Affairs)

OBJECTIVE

To assist foreign countries, principally the newly industrialized countries, through technical assistance and, in so doing, increase penetration of foreign markets by Canadian companies and promote sales of Canadian goods and services. This program is intended to match similar trade promotional support programs offered by competitor countries.

AUTHORITY

Cabinet Approval, April 1978 (original expiry date 1983; new expiry date 1987).

DESCRIPTION

The following activities are included:

1. at the request of foreign governments, public sector expertise is provided to overseas projects;
2. training is arranged both in Canada and in the customer country to enable the acquisition of specialized or professional knowledge; and
3. public sector expertise is available to firms bidding on projects.

A useful feature of the program is that participating departments and agencies are allowed to replace staff seconded to CRTA projects (up to 65 person-years).

BENEFICIARIES

Participating developing countries, participating educational establishments, and, potentially, participating Canadian firms which may receive contracts as a result of the CRTA program. In addition, Canada can benefit from gathering commercial intelligence abroad.

EXPENDITURES

Since its introduction, the sole resource devoted to the program has been 0.5 person years at an estimated cost of $50,000 per year. The program operates on a cost recovery basis, and salaries and benefits of public service experts working abroad are paid by the customer country. Attendance of nationals at training programs in Canada is also paid for by the customer country.

OBSERVATIONS

There is some overlap with Interchange Canada, the Canadian Commercial Corporation and the technical assistance element of CIDA's Industrial Cooperation Program. There is also similar activity in at least one province, Ontario.

Current activity consists of five projects, with twelve project proposals on hold pending decisions on increasing resources and locating the program (now with the Asia and Pacific Branch) more centrally within EAC.

The program has a low priority within EAC and has not been actively promoted; a review of where it might better be located within the department will take place in the near future.

A 1983 program evaluation contended that CRTA had met some of its objectives in terms of incremental effects on export sales by Canadian firms; in addition, a modest enhancement of bilateral relations was indicated. A secondary objective of matching similar trade promotional efforts displayed by other countries had not been met. It was considered that benefits had surpassed costs. The recommendation was for renewal, improvement, and expansion of the program and recovery of total operational costs. Treasury Board approved a three year extension to the program in 1984.

If the program were eliminated, minor savings would result and the field for this potentially useful trade-increasing mechanism would be left open to Canada's competitors.

ASSESSMENT

Due to EAC's lack of attention to CRTA, the program is almost non- operational. The low priority afforded the program may be due in part to a misfit between CRTA objectives and EAC's traditional role.

The program consumes few resources and has some limited prospects for increasing Canadian exports over the long term. It is considered that the program's potential could be maximized, particularly if coordinated with Canada's aid program.

OPTIONS

The study team recommends to the Task Force that the government consider continuing the program with three modifications:

- charge all costs to foreign governments;
- undertake improvements so as to maximize potential; and
- incorporate CRTA with CIDA's Industrial Cooperation Program.

CIDA - INDUSTRIAL COOPERATION PROGRAM (INC)
(External Affairs)

OBJECTIVES

To encourage the involvement of the Canadian private sector in the industrial development of developing countries and, at the same time, to develop markets for Canadian exports of goods and services.

AUTHORITY

TB 758659 September 1978; Appropriation Act.

DESCRIPTION

This program can be divided into three main groups consisting of 13 activities.

1. Project Identification

a) Information Analysis and Dissemination;
b) Project Identification Studies;
c) Seminars, Workshops and Meetings;
d) Missions;
e) Technology Transfer Exhibitions;
f) Industrial Development Services;

2. Project Definition

a) Starter Studies;
b) Viability Studies;
c) Canadian Project Preparation Facility (CPPF);
d) Canadian Technology Transfer Facility (CTTF);
e) Canadian Renewable Energy Facility (CREF);

3. Project Implementation

a) Project Support;
b) Technical Inputs.

Project Identification Activities aim at establishing contacts and linkages where opportunities for long-term business collaboration can develop which could be of mutual benefit to both Canada and developing countries. Projects which provide information on the possibilities for industrial cooperation to Canadian businesses and developing nations are also eligible for support. Activities covered

include the collection and dissemination of information, project identification studies which match Canadian companies' capabilities with the requirements of developing countries, investment promotion visits (incoming and outgoing), and meetings, seminars and workshops.

Under Project Definition up to $15,000 per project is available for starter studies, which provide preliminary analyses of investment opportunities. Viability studies, which are detailed evaluations of particular projects, are supported to a maximum of $100,000 per project. The CPPF provides assistance for pre-feasibility studies for development projects. This program activity is designed to enhance Canadian participation in development projects financed through international financing institutions. A maximum of $350,000 per project is available. The CTTF and CREF are designed to encourage the transfer of Canadian technology to developing nations. Under the CTTF, tests and demonstrations of Canadian technology are eligible for assistance of up to 75 per cent of net costs. The CREF will cover up to 100 per cent of the net costs of test/demonstration projects of renewable energy technology, to a limit of $250,000 per project.

Assistance is provided through the Project Support activity to overcome special problems associated with conducting business in developing countries and to maximize the developmental impact of industrial projects. Support is available for training programs, personnel recruitment, the engagement of professional services, and equipment and facilities to increase the developmental impact of a project. Similarly, the Technical Input activity supports projects which match Canadian technical capacities to industrializing nations' needs. The provision of expertise by Canadian institutions, the use of LDC experts as resource people and the promotion of Canadian business activity in developing nations by various institutions are eligible for assistance.

Projects which provide information on the possibilities for industrial cooperation to Canadian businesses and developing nations are also eligible for support. Activities covered include the collection and dissemination of information, project identification studies which match Canadian companies' capabilities with the requirements of developing countries, investment promotion visits (incoming and outgoing), and meetings, seminars and workshops.

A total of 1,104 contribution agreements with the value of $86 million had been made under the program up to March 1984. Most were for visits/seminars, followed closely by starter studies; CPPF, viability studies and technical assistance were also significant. The majority of funds went to CPPF, followed by technical assistance and visits/seminars.

BENEFICIARIES

Developing nations, Canadian companies and institutions and organizations in Canada and in developing nations.

Regional distribution of INC contribution agreements for 1984-85 is as follows: Ontario $13 million (131 projects); Quebec $12 million (104 projects); British Columbia $6 million (39 projects); Alberta $2 million (21 projects); Nova Scotia $0.5 million (7 projects); Manitoba $0.3 million (6 projects); Saskatchewan $0.2 million (7 projects); and Prince Edward Island $0.1 million (1 project).

EXPENDITURES (millions of current dollars)

	82-83	83-84	84-85	85-86	86-87
Salaries	0.9	1.0	n.a.	n.a.	n.a.
O & M	0.2	0.3	0.3	0.3	0.5
Contributions	17.8	21.1	36.9*	35.6	40.6
TOTAL	18.9	22.4	n.a.	n.a.	n.a.
Person Years**	23	24	26	28	30

* Includes $11 million transferred from bilateral aid.
** In addition, one person year in each of DRIE's ten regional offices acts as a focal point for INC-related activity; person year involvement is not known.

OBSERVATIONS

The program was set up in response to the need of third world countries for technology, and the needs of small and medium-sized Canadian companies involved in technology transfer. Companies eligible for assistance must have 51 per cent Canadian ownership or be 'beneficially' owned by Canadians.

The program currently has thirteen elements, two of which (namely CREF and Information Development and Project Identification) have not been used frequently. Further program modifications may occur as a result of a recently started program evaluation which program management has brought forward.

INC was introduced in 1978, with contributions at $0.4 million. Contributions in 1983-84 were $23 million, and for 1984-85 are $37 million. In order to respond quickly to the business community, there is no priorization of applications; eligible applicants are funded on a first-come first-served basis.

Discussions are held with EDC, DRIE, EAC (HQ), Finance, CIDA's Bilateral Branches and EAC's posts (a process which takes six to eight weeks or less) to ensure coordination and avoid duplication.

There is some similarity and complementarity between certain INC elements and PEMD although the program objectives differ. Most countries covered by INC program assistance are not covered by EDC or private Canadian banks. (CIDA has participated with private banks and EDC in parallel financing transactions.) Generally there is coordination between INC and provincial activities. Some provincial crown corporations actively seek opportunites in third world countries; there may be some overlap with INC. There may also be some overlap between INC and EAC trade commissioner and CCC activity if CIDA actively seeks opportunities for INC coverage.

CIDA undertook a cross-Canada campaign to interest Canadian businesses in the program, and demand for assistance has increased (between 280 and 350 telephone calls relating to INC are received daily). The significant increase in funding, almost 100 per cent in two years, has occurred without any total assessment of INC program benefits. The Consultation Paper on Export Financing considers INC successful in winning contracts in third world markets. (It is considered generally that CIDA has been very successful through its bilateral programs in introducing Canadian equipment, technology and engineering services to new markets.) The program is demand-driven in that requests for program funds have increased from Canadian companies and from third world countries. For free, or partly free goods, however, there is always a growing market which outpaces supply.

A useful feature of the program is that it makes funds available for each step in the sequence of events leading up to a joint venture or investment opportunity where technology transfer is involved, e.g. mission, starter study, viability study, project support. With respect to CPPFs, a bottleneck, from the Canadian firm's viewpoint, appears to be the feasibility study stage, where costs are significant (up to $3 million) yet contributions are not currently available within the INC program. EDC financing is often not available either because a large proportion of countries involved in CIDA's INC Program are off-cover to EDC. (In some cases, therefore, Canadian INC-funded pre-feasibility studies assist not Canada, but other countries able to finance the feasibility study. If Canada does not undertake feasibility studies it is unlikely to win contracts.

Currently, only 10 per cent of Canada's trade is with third world countries. Third world trade is expected to account for about 30 per cent of world trade in just over a decade. If Canada is to benefit from trade with the third world it must increase its efforts to find new markets now. Most international aid (or aid-trade activity) is provided for infrastructure, yet, in order to realize economic development (and thus increase demand for exports), third world countries need to develop their private sectors. INC encourages this development through its emphasis on joint ventures.

ASSESSMENT

The rationale for a program such as INC appears valid, particularly the provision of assistance up to $350,000 for pre-feasibility studies related to projects financed through international financial institutions (IFIs). IFI-related activity is expected to increase and competition is fierce. Consideration should be given to developing a means of assisting companies with financing the feasibility study project stage. (A successful Japanese model involves government selection of appropriate suppliers, contractors and consultants, all of whom are involved in a project from its inception, and assistance with all project phases is available.)

With the above-mentioned exception, program structure and delivery appear logical, and company plans and strategies are discussed with INC officials. CIDA's recently established Business Cooperation Branch now responsible for INC Program management provides a focal point for interested firms thus improving accessibility.

Many Canadian companies do not appear to be familiar with exporting even to developed countries. In third world countries, exporting is far more complex, and CIDA's experience would undoubtedly prove invaluable, particularly to small and medium-sized firms.

Despite the large amount of funding available for any one project, partial or full cost-recovery for successful Canadian companies has not been considered.

INC serves two purposes. Through the program CIDA fulfills its primary role of assisting the economic and social development of less-developed countries while at the same time providing opportunities to Canadian firms for expanded trade. Several of the less-developed countries are at the stage of seeking suppliers for different goods and services, and it is anticipated that capturing such markets would prove beneficial to Canada in the long run. The effects of attempts by development agencies to establish such trade linkages are difficult to assess.

If the program were eliminated, the major losers in the short-term would be Third World countries and Canadian businesses. In the long-term, Canada's share of exports to the third world would decrease and our export markets would be less diversified. Current competition for third world trade is keen and other countries provide assistance to their industries to improve competitiveness. Canada, relying heavily upon exports, would find itself at a disadvantage not to do the same.

OPTIONS

The study team recommends to the Task Force that the government consider continuing INC, in that it has potential for increasing Canadian exports, diversifying export markets, and for contributing to CIDA's role in assisting third world countries to develop. However, the following observations apply:

(i) modifications to the program and any further increase in funding should await the results of the program evaluation in progress;

(ii) program spending should remain within the limits of the current budget;

(iii) some degree of cost recovery from successful Canadian companies should be considered; and

(iv) CIDA should ensure that activities related to the INC program do not duplicate EAC trade commissioner or CCC roles, particularly in the case of IFI projects. CIDA should keep trade commissioners informed of anticipated export-related activities in third world countries.

CANADIAN COMMERCIAL CORPORATION/EXPORT SUPPLY BRANCH (Supply and Services Canada)

OBJECTIVES

The Canadian Commercial Corporation's broad objectives are to assist in the development of trade between Canada and other nations and to assist persons in Canada either to obtain goods and commodities from outside Canada or to dispose of goods and services that are available for export from Canada.

AUTHORITY

Canadian Commercial Corporation Act, 1946; Government Organization Act, 1982; Bill C-24; Appropriation Acts; Orders-in-Council.

1978 Memorandum of Understanding between the Corporation (CCC) and the Export Supply Branch (ESB) of Supply and Services Canada (SSC) (reviewed and modified periodically); DSS Act; Defence Production Act; Letters of Agreement with various countries concerning procurement through CCC.

DESCRIPTION

CCC operates two programs, CCC-1 Traditional Sales, and CCC-2 Capital Projects. CCC serves as the prime contracting agency when other countries or international agencies wish to purchase goods or services from Canada on a government-to-government basis. It also participates in export transactions where its involvement is required or seen as advantageous by Canadian suppliers and foreign buyers, and generally guarantees the performance of and payment to the Canadian supplier. It serves as prime contractor for turnkey capital project exports in response to private sector requests or ministerial direction. The Program covers commercial or defence goods and services, largely U.S. defence procurement through DPSA, and the Defence Production and Defence Development Sharing Arrangements under which over 80 per cent of sales are to the U.S., largely for military items. CCC also provides advice, guidance and assistance to Canadian exporters, particularly small and medium business. There is a one-person CCC office in Vancouver serving Western Canada.

CCC operates its traditional business (contracting for goods and services) almost entirely through ESB, which utilizes SSC source lists to locate appropriate Canadian suppliers capable of meeting customer requirements, and SSC procurement branches to undertake the procurement in Canada. CCC, through ESB, executes prime as well as back-to-back contracts; transmits invitations to bid from client governments and agencies to Canadian suppliers; evaluates the technical and financial feasibility of the product, service, or project package; reviews the technical and financial capability of suppliers; analyzes risks; organizes single-sourcing, by which a group of Canadian suppliers provide the entire range of products or services in a specific field; participates in negotiations; facilitates contacts at senior government levels in Canada and abroad; and undertakes contract management, inspection, acceptance and payment aspects of each sale. There is no charge to Canadian exporters for CCC work on their behalf, though an administrative charge is built into the quoted price for capital projects. CCC's sales volume in 1983-84 reached a record $610 million, mostly defence projects; capital projects amounted to $19 million.

BENEFICIARIES

Canadian exporting companies (particularly defence-related), foreign governments, international organizations, and foreign buyers.

In 1983-84, 67 per cent of CCC sales were from Ontario, 20 per cent from Quebec, 10 per cent from western provinces and 3 per cent from the Atlantic. Four-fifths of contracts were under $100,000, and almost half of the companies involved were small, with less than 100 employees or less than $5 million in annual sales.

EXPENDITURES (estimated) (millions of current dollars)

CCC Corporate Resources *

	Actual 83-84	**Outlook 84-85**	**Budget(A) 85-86**	**Plan(A) 86-87**	**Plan(A) 87-88**
Operating Expenditures					
Salaries	0.5	0.7	0.9	1.0	1.0
O&M	0.6	0.6	0.5	0.5	0.5
TOTAL	1.1	1.3	1.4	1.5	1.5
Person Years	17	16	16	19	19

* Mostly CCC-1, Sales.

CCC Capital Projects Resources

	Actual 83-84	Outlook 84-85	Budget(A) 85-86	Plan(A) 86-87	Plan(A) 87-88
Operating Expenditures					
Salaries	0.2	0.3	0.3	0.3	0.3
O&M (including Contingency)	0.3	0.3	0.8	0.8	0.8
TOTAL	0.5	0.6	1.1	1.1	1.1
Person Years	5	6	6	6	6

Export Supply Branch Resources*

	Actual 83-84	Outlook 84-85	Budget(A) 85-86	Plan(A) 86-87	Plan(A) 87-88
Operating Expenditures*					
Salaries	3.6	3.9	4.2	4.5	4.5
O&M	2.3	2.4	2.4	2.5	2.5
SSC Support Services	9.2	10.0	11.1	10.8	11.7
TOTAL	15.1	16.3	17.7	17.8	18.7
Person Years	98	98	100	106	106

* ESB's operating costs are funded initially through the Supply Revolving Fund and subsequently paid by CCC. SSC procurement branches charge CCC for acquisition services incurred.

Total Resources

	Actual 83-84	Outlook 84-85	Budget(A) 85-86	Plan(A) 86-87	Plan(A) 87-88
Operating Expenditures					
Salaries	4.3	4.9	5.4	5.8	5.8
O&M	3.2	3.3	3.7	3.8	3.8
SSC Support Services	9.2	10.0	11.1	10.8	11.7
TOTAL	16.7	18.2	20.2	20.4	21.3
Revenues	3.9	3.4	1.5	1.6	1.5
Person Years	120	120	122	131	131

(A) To meet the new expenditure cutback, CCC proposes to take such measures as consolidation and elimination of the Capital Projects group resulting in savings of $2.0 million. However, it would be improper to prejudge the Government's consultative process; expenditures are therefore projected at the higher level. At the request of External Affairs and Treasury Board officials, the Corporate Plan has been revised accordingly, recognizing that it may have to be changed once the consultative process has been completed. A further impact of the Corporation's cost-cutting proposals through consolidation and reduction in capital projects efforts would result in a savings of some 11 person years, thereby reducing 1986-87 and 1987-88 person year requirements to 120.

OBSERVATIONS

The January 1985 Consultation Paper on Export Financing identified three issues of concern regarding CCC. The major issue is whether or not, CCC's mandate should be reduced to the basic role required under the Canada/U.S. Defence Production Sharing Arrangement, and beyond that to responding to demands for government-to-government contracting only where required by foreign governments. Other issues raised related to possibilities for putting CCC on a cost recovery basis, and for increasing efficiency through a reorganization in which CCC and SSC's Export Supply Branch staff would become a single entity.

It is the view of CCC that if its role were to be confined to DPSA, commercial and defence opportunities would be lost. With respect to reorganization, the current administrative arrangement between CCC and SSC has led to questions of accountability, direction, control, and duplication of effort. CCC considers that it needs its own policies, practices and procedures related to the international marketing environment. (A 1983 consultant study also recommended consolidation of SSC's Export Supply Branch into the corporate entity in order to resolve problems, reduce costs, and lead to a more effective utilization of person years.)

CCC has a policy to recover costs but has not implemented the policy due to an interdepartmental decision not to do so. Moreover, DPSA, as currently constituted, provides for reciprocal service, though modifications could be introduced.

There are currently mixed private sector views on what CCC's role should be. It is the view of some members of the private sector that they, and not CCC, are in the best position to initiate business overseas; if a government role is necessary they can contact CCC. CCC supports this approach.

Regarding CCC's role in obtaining contracts funded by International Financial Institutions (IFI's) such as the World Bank, CCC believes it has an advantage over individual companies in IFI business because it can offer multi-item packages and it can protest more effectively and with some clout if it feels it does not obtain IFI business in cases where it has the lowest compliant bid. There is some degree of support for this view in the private sector.

A 1983 Price Waterhouse evaluation of CCC's Capital Projects Program indicated that during the previous seven year period of the Program's operation, 106 capital project opportunities identified resulted in 20 submissions by CCC plus Canadian suppliers from which 3 contracts were signed. To date 215 projects have been reviewed and over 20 projects are active or under evaluation. This activity is entirely responsive on CCC's part.

CCC has been successful in increasing Canada's share of U.N. business. Such business is only available to entities listed with the U.N. and CCC's efforts have enabled the Corporation to be included on the U.N. list for bids.

CCC's major activity, contributing to the necessary Canadian government role in DPSA, is easily identifiable and quite distinct from its other activities which are less clearly defined. Furthermore, although 20 per cent of CCC sales are commercial, the Corporation has to devote more than 20 per cent of its efforts to this area. During 1983-84, CCC plus ESB (120 people) with input from SSC's procurement branches served 375 Canadian companies, resulting in the signing of 1,016 contracts involving 2,100 contractual documents. Operating expenditures amounted to $17 million, and revenues equalled $4 million. Eighty per cent of the contracts were for amounts of less less than $100,000, and 47 per cent of the 375 suppliers were small firms.

CCC cooperates with EAC's trade commissioner service. Overlap between activity by the private sector, provinces, and the CCC may or may not exist. Responsibility for defence contracts is spread over four entities -- EAC administers and monitors DPSA, undertakes program-related

marketing, and is involved with issues of a political nature; CCC is responsible for front end sales and all aspects of contracting; DRIE undertakes activity related to the Defence Industry Productivity Program, and DND provides quality assurance.

ASSESSMENT

There is a requirement for a government agency to deal with the legitimate request of foreign governments for government-to-government contracts. Government involvement is essential in DPSA and although involvement could be provided in a number of ways, it is not clear what would be gained by changing the present arragement.

Confining CCC activity to DPSA and government-to-government activity on request would affect export levels. The degree to which export levels would be affected would depend upon private sector success in initiating business which would eventually require government-to-government involvement. U.N. business is likely to be lost.

CCC involvement in obtaining capital projects has been limited. It is not known whether this field of activity will provide greater opportunities in the future.

CCC's current mandate is broad, providing some flexibility to respond to different trade environments.

The current divided operation, CCC plus ESB, is not likely to contribute to efficiency. Consolidation should enable CCC to improve accountability, exercise a greater degree of flexibility and allow ESB staff to devote themselves entirely to CCC without any responsibility to SSC.

If CCC were eliminated, other arrangements for DPSA and for government-to-government contracts would have to be made, but it would appear necessary to retain the corporate structure for legal purposes. CCC's role with respect to putting together bid sets abroad would not be carried out, though the trade commissioner service could identify some opportunities for the private sector. (Similar activity is also carried out by the private sector itself, particularly trading houses.) The number of small and medium-sized companies engaged in exporting might be reduced and some export opportunities might be foregone. Savings in costs and person years would result.

The option of incorporating ESB in CCC with no change in mandate would also result in cost and person year savings.

OPTIONS

As discussions on the Consultation Paper on Export Financing have yet to take place and the government has yet to consider recommendations in the recent report of Trading House Task Force, it would be premature to recommend alternatives. The Task Force might, however, wish to reflect on three study team observations, namely that:

1. effectiveness and efficiency are likely to be increased if resources are consolidated in a single entity preferably under External Affairs, with a corresponding reduction in resources of 10 per cent. A corporate structure would likely need to be retained for legal purposes;

2. some degree of cost recovery should be considered; and

3. in the period of time available for review, no definite conclusion has been made as to the role that CCC should play, i.e. to maintain its current activity, to change its activity, or to reduce activity to DPSA operations plus responding to requirements for government-to-government contracts only where required by foreign governments.

TECHNOLOGY DEVELOPMENT FOR COMMUNICATIONS MARKETS (TDCM)
(Department of Communications)

OBJECTIVES

The objective of TDCM is to improve the competitiveness of Canadian companies in the space, telecommunications and related technology industries when bidding on international opportunities.

A secondary objective is the creation of new high technology employment in Canada.

AUTHORITY

Treasury Board approval, February 1985. (Previously the International Bid Support Program (ISB).) Appropriation Act.

DESCRIPTION

TDCM replaces the former ISB Program which made commitments to space industry companies successful in obtaining new international business.Funding was provided for a given amount of that company's non-recurring engineering costs related to applied R&D carried out in developing new products or adapting existing Canadian products for the international market. DOC's commitment allowed the company to reduce the amount of its bid, and thus increased the probability of its success.

TDCM funds companies in the space, telecommunications and related technology industries up to a level of $1 million through contributions towards non-recurring costs for labour and expendable material used in developing or modifying products for the market. TB referral will no longer be required, and costs are reimbursed periodically on a negotiated basis. Companies must be committed to invest their own funds for a minimum of 50 per cent of total non-recurring costs. Markets for the proposed products with near term sales potential must be identified, and potential sales should be at least 10 times the level of TCDM support provided.

BENEFICIARIES

Successful Canadian incorporated manufacturing companies engaged largely in space or terrestrial communications and related technologies. Funds have not yet been expended under the TDCM Program, but under its

forerunner, funding was provided for three projects involving Spar Aerospace in Quebec, for one project involving Microtel Pacific Research in B.C., and for one project with Raytheon/SED in Ontario and Saskatchewan.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Salaries & Wages	0.1	0.1	0.1	0.1	0.1
Contributions	n.a.	1.5	2.2	2.2	2.2
TOTAL	n.a	1.6	2.3	2.3	2.3
Person Years*	1	1	1	1	1

* Less than 1.

OBSERVATIONS

The communications sector is considered the single largest domestic and international growth area. Many foreign companies receive extensive R&D funding from their governments in order to develop competitive products. Canadian companies must be in a position to benefit from the expanding export market for space and terrestrial systems; failure to do so would lead to trade deficits in a technology in which Canada traditionally has been a leader.

The Development of Space Sub-systems and Components by Industry Program provides funds for research relating to product development or modification; the difference between the latter program and TDCM is that TDCM is designed to respond speedily to current opportunities rather than longer-term possibilities. PEMD and provincial programs provide assistance for bidding, but not necessarily for product development or modification. Some aspects of TDCM are eligible under the Defence Industry Productivity Program, but response time is considered to be too slow.

Changes to the IBS Program, including the name change to TDCM, were prompted partly in order to improve the program's delivery and effectiveness and expand its scope, and partly to prevent Canada's trading partners from interpreting the Program as a subsidy under the GATT.

The IBS Program had not been reviewed or evaluated, though provision has now been made to evaluate the TDCM Program annually and for a review of the effectiveness of contributions under TDCM's terms and conditions after five years.

Through international meetings related to its regulatory role, DOC is aware of activities in other countries and of potential market opportunities. It also knows the small number of Canadian companies in the industry. Furthermore, the technical knowledge required to evaluate proposals for product modification or development is available in DOC.

Support for the IBS program to date amounts to $6 million of which one company received just over $3 million, and two other companies just over one million each. Sales resulting from these projects amounted to $47 million, with considerable future potential. One project was unsuccessful.

ASSESSMENT

Changes to the program should make it more effective and far less likely to be considered contrary to the GATT. It is anticipated that demand for the program will increase due to its extension to other industry sectors.

A useful feature of the former IBS program was that government funding was made available only if a company, on its own merits, succeeded in winning a bid. TDCM commits government contributions regardless of the outcome. Despite large potential benefits to companies there is no provision for cost recovery.

The effectiveness of the 'joint venture' approach, combining TDCM-type activity together with CIDA and DRIE support, should be examined. If it appears to be successful, its use should be encouraged for the space industry and for any other industry where appropriate.

Canada's space industry has enjoyed considerable government support based on anticipated long-term returns. The value of potential contracts can be significant and successful bids result in increased employment in the high technology industry. If long-term benefits are still achievable, then the program's rationale is valid.

If TDCM were eliminated, some assistance would be available through DIPP and, for longer term possibilities, DOC's Space Sub-system and Components Program. PEMD funding would be available only if the Section A category 'special costs' were broadened to include costs for product development or modification for the international market.

(Section A currently provides grants for up to 50 per cent of special costs, repayable if the project is successful.) Though requiring some modification to improve effectiveness and efficiency, PEMD is a long-standing, well-established program. The advantage of concentrating all assistance related to the development of exports in one department, namely EAC which is responsible for trade development, is that industry has one focal point rather than several and some cost reductions may be possible. Moreover, space industry companies would be on an equal footing with other industries and some costs could be recovered from successful projects. Disadvantages are that PEMD could become unwieldy and slow, and program management does not have the necessary technical expertise to make judgments and would have to obtain it. (This topic is referred to in the Overview Paper on International Trades. See separate assessment of PEMD.)

OPTIONS

The study team sees three options:

1. **Discontinue TDCM.** Savings of approximately $2.3 million would be realized. Less than one person year is devoted to the program.

2. TDCM to be managed by a central space-related government agency.

3. Modify PEMD Section A in order to include TDCM-type activity only if program operating costs can be reduced without a corresponding reduction in effectiveness.

DESIGN COUNCIL/DESIGN CANADA
(Regional Industrial Expansion)

OBJECTIVE

The objectives of the National Design Council are to promote and expedite improvement of design in the products of Canadian industry.

AUTHORITY

The National Design Council Act.

DESCRIPTION

The National Design Council (NDC) was established by legislation in 1961. It comprises 17 members appointed by the Governor in Council and the Act specifies the sectors from which the members are to be drawn as follows:

five members from industry, commerce and organized labour;

four members from architecture, design and engineering;

four members who are employees of Her Majesty;

two members from the distributive sector; and

two members of the general public.

The NDC members including the chairman, receive only expenses for travel, meetings etc.

The National Design Council Act empowers the Council to implement programs to create an awareness by industry and the general public of the need for good design. It can also recommend to the Minister the awarding of grants and scholarships and make awards in respect of Canadian products of out- standing design.

The NDC has operated during the recent past a Design Canada Scholarship program (terminated in November, 1984) and a joint federal- provincial program, the Product Development Management Program, to assist small Canadian companies in learning how to manage projects relating to the development of new products for the marketplace. This latter program expired in March 1984.

In 1980, the NDC instituted the Design Canada awards which have since been presented annually, although from 1984 they have become associated with the broader Canada Awards for Excellence.

The NDC also represents Canada internationally through membership in the International of Societies of Industrial Design (ICSID) and the International Council of Graphic Design Associations (ICOGRADA), the international societies dealing with industrial and graphic design respectively.

The NDC is supported by the Awards and Design Directorate of the Department of Regional Industrial Expansion. Of the 11 PY's shown for 1985-86, 2 person years are allocated to support the work of the NDC, with the remainder involved in the promotion and development of design. In addition 3 PYs have been approved for management of the Canada Awards Programs.

EXPENDITURES (millions of current dollars)

	83-84	**84-85**	**85-86**	**86-87**	**87-88**
Salaries and Wages	0.6	0.4	0.4	0.4	0.4
Other O&M	0.3	0.3	0.3	0.3	0.3
Grants (incl. awards)	1.2	1.1	1.0	1.0	1.0
TOTAL	2.1	1.8	1.7	1.7	1.7
Person Years	16	10	11	11	11

OBSERVATIONS

For some considerable time the NDC has operated well below its full complement of 17 members and since September 1984, in fact, all positions on the Council have been vacant. The Directorate has made suggestions for appointments.

The three main areas of design in which the NDC makes its awards, industrial design, graphics design and interior design, all have professional associations, e.g. the Association of Canadian Industrial Designers represents industrial designers, with the objective of furthering their respective professions and encouraging better design. These bodies are also members of the two international societies of which the NDC is a member.

Association of Canadian Industrial Designers shares Canada's vote on ICSID and the Society of Graphic Designers of Canada and the Société des Graphistes du Québec are members of ICOGRADA.

Nova Scotia, Manitoba and Saskatchewan have government funded Design Councils. Apparently Ontario is considering establishing one, as may Quebec.

ASSESSMENT

Good design is an important part of selling products competitively and Canadian business, both manufacturers and others, needs to have functional, attractive design for its products. However, the increasing internationalization of markets means that market forces should bring this need strongly to the notice of individual Canadian businesses and that government preaching will add little, if anything, to the message.

If there is any residual need to make Canadian business aware of the need for good design in order to sell products then it should be up to industry, through the various associations, to perform this role. Although a large number of industrialized countries have some organizations analagous to the NDC, in many cases the organization is non-government (albeit, receiving government funds). If industry considers there should be a Canadian design body it should be willing to fund it, in whole or in part. Unless industry is actively (and financially) involved, such an organization is likely to be irrelevant.

There is probably some merit in the Awards in that they do engender considerable media coverage and thus assist in bringing to the attention of the Canadian public the high quality of Canadian products. Also, the Design Awards have now become associated with the broader Canada Awards, and given the recentness of that program there may be merit in continuing it for a further year or two before assessing it. Even with the Design Awards, however the focus should probably be more on industrial design rather than graphics or interior design.

Given that the professional associations also represent Canada on the international societies, which are themselves non-government organizations, there appears to be little need for the NDC for this purpose.

As there are no current members of the NDC, no appointments would have to be terminated if the Council were to be abolished.

OPTIONS

The study team recommends to the Task Force that government consider making no further appointments to the NDC and repealing the National Design Council Act. The professional associations in the industrial, graphics and interior design fields, in association with the Canadian Manufacturers Association and other industry bodies, be encouraged to establish a privately managed association to foster good design. The government sponsored Design Awards be maintained until the private organization is established, say 2 to 12 months, after which the government's involvement could be restricted to partial financial assistance for the awards. This alternative could lead to savings of around $1 million and 10 person-years.

BUSINESS OPPORTUNITY SOURCING SYSTEM (BOSS)
(Regional Industrial Expansion)

OBJECTIVE

The primary objective of the program is to sell more Canadian products. BOSS increases opportunities for Canadian suppliers in domestic or international markets through the establishment of an information system which identifies Canadian suppliers by product. A further objective is to identify Canadian sources of supply which might be used to substitute for non-Canadian suppliers.

AUTHORITY

Federal/Provincial agreement between provincial ministers responsible for industry and trade and the Minister of Industry, Trade and Commerce, Summer 1978. Appropriation Acts.

DESCRIPTION

BOSS is a system which enables buyers in Canada or abroad to identify potential Canadian suppliers of the product they require; it also, in reverse, allows suppliers to identify users of their products and to find supply opportunities. DRIE compiles an authoritative data base on companies, their products (using Statistics Canada's International Trade Classification with 16,000 product codes and 32,000 product descriptions, allowing for a very precise description), and the markets they serve, and commits the data to microfiche, on- and off-line computers, and hardcopy. The system is updated continuously (a certain proportion of companies are contacted each month), and publications are updated every six months. Canadian companies are asked to provide voluntarily basic data describing the company and its various products. About 17,000 companies have registered and it is anticipated that 24,000 companies will be listed by the end of 1985, with the increase largely due to the inclusion of service firms (roughly 5,000 from selected sub-sectors initially). Two types of basic directories are published: a listing of products and companies which produce them, and a listing of companies and the products they produce. The system can also produce specialized directories in response to particular needs, such as directories of Trading Houses and of Medical Devices, as well as directories of BOSS companies by province, and of those companies exporting to the U.S.

Approximately 600 directories are distributed free to Canada's posts abroad, DRIE regional offices, Business Information Centres, provincial industry departments and Chambers of Commerce and private companies. BOSS deals with between 40,000 to 60,000 sourcing requests a year (by mail or telephone), and information is available free to users though a fee is charged (based on computer time) for complex enquiries. Roughly 50 per cent of activity is related to answering enquiries. BOSS is also used to locate appropriate representation for trade missions and fairs, in Canada and abroad.

BENEFICIARIES

Canadian manufacturing companies, agents, trading houses and service firms; municipal, provincial and federal governments (particularly trade commissioners abroad); and the private sector (Chamber of Commerce, purchasing departments of large corporations, sourcing services, and selected multi-national enterprises). Small companies benefit in particular since many of them do not belong or are not known to the Canadian Manufacturers Association and do not have access to its Trade Index; of the 14,500 BOSS companies which provide information on volume of sales or employees, roughly 12,800 are small or medium-sized.

EXPENDITURES (millions of current dollars)

	83-84	**84-85***
Salaries	0.5	0.5
O & M	0.4	0.3
"Think Canadian" funding	n.a.	0.1
TOTAL	0.9	0.9
Person Years	13	13

* Estimated.

OBSERVATIONS

There are a number of sourcing systems at the federal level (for example, Supply and Services Canada and CIDA), at the provincial level, in private sector institutions, as well as commercially produced systems. The purposes served by the various federal systems differ, and the type of information and level of detail vary.

A 1983 survey of posts abroad undertaken when BOSS was available only on microfiche revealed that BOSS was the eighth most used sourcing system, the most widely used being the Canadian Manufacturers Association (CMA) Trade Index. (Service companies are excluded from this index which is available only in English.) A number of shortcomings were indicated such as BOSS was complex, information was difficult to find, average response time was too long, and too few companies were listed. The survey indicated that the trade enquiry service associated with BOSS was highly satisfactory.

Trade commissioners need an assessment of companies included in any source list. An assessment was included prior to the Access to Information Act but it is no longer provided, thus posing a major problem for commissioners. The survey indicated that assessments and supplementary information on particular sources or companies obtained from DRIE industry sector branches (ISB) presented serious problems in that it was inadequate in quality and took too long to obtain. Although not provided as part of BOSS, this information is needed by posts abroad. Response is still perceived as slow, partly because posts have to deal first with DRIE ISBs and then with the individual companies; it is not clear that the quality problem has been resolved.

A 1983 Feasibility Study on Government-Wide Sourcing Systems undertaken by consultants for Supply and Services Canada reviewed the sourcing needs of various federal departments, and the systems currently available, both public and private. BOSS system weaknesses at that time were said to include the lack of clear identification of Canadian ownership and manufacturing capability (although only Canadian products were listed and the nationality of the parent company was noted), and the lack of information on service companies. At the same time, tremendous potential was seen for the public sector to replace imports with Canadian manufactured goods or services. (It was estimated conservatively that a one per cent reduction in public sector imports would result in 1,900 jobs and import replacement of $130 million.) Costs of all federal sourcing systems were estimated at $85 million (split almost equally between formal and informal systems); costs for SSC, the largest system, were estimated at $26 million. (The cost for BOSS is currently under $1 million per annum.) The study also concluded that almost all data needs required by the federal government could be serviced by data currently available from private sector sources.

The consultant study suggested a six-step evolutionary process to put in place over the next nine years a government-wide sourcing system at a cost of approximately $10 million. Such a system closely parallels the successful Small Business Administration of the U.S. government. No action has been taken on the study recommendations.

In response to criticisms of BOSS a number of improvements have been made including making the system available in hard copy, computerizing and updating the system (on-line facilities will be provided soon in three U.S. posts on a trial basis), increasing the number of companies in the system, including service sector companies, and reducing BOSS response time to overseas post enquiries (now one to three days). Furthermore, a user information program has been held across Canada (in part to dispel the negative perceptions towards the earlier system), and a marketing strategy to increase BOSS utilization is being developed. Although usage of BOSS is difficult to measure, program management states that feedback indicates that the system provides growing assistance to the private and public sectors.

A study by the Bureau of Management Consultants currently in progress reveals that, in terms of order of sourcing preference by type of directory, CMA's Trade Index is still first, but BOSS is second for EAC and for DRIE, third for Chambers of Commerce, and fourth elsewhere. Furthermore, the study shows that 90 per cent of posts abroad use BOSS now (compared with 65 per cent in 1983) and 30 of 34 posts surveyed found BOSS satisfactory. Roughly 90 per cent of private sector clients also found BOSS satisfactory. (Some earlier private sector users of the system who ceased using it because they were dissatisfied have tried BOSS recently and indicate that it is now useful.)

BOSS has had some success in increasing import substitution in the case of medical devices, a field dominated by foreign imports. BOSS produced a source list of Canadian manufacturers, published it and distributed it to directory users. Foreign imports of medical devices available from Canadian sources have been reduced. The impact of BOSS on exports is unknown and difficult to measure. (It is used in roughly 30,000 sourcing enquiries by EAC annually.)

It is anticipated that provincial Chambers of Commerce will participate imminently in a drive to increase the number of companies included in BOSS.

The November 1984 Task Force report on "The Trading House Option" recommended that EAC establish a Trade Opportunities Information System so that posts abroad can provide information on business opportunities daily. Such a function is, or should be, an integral part of the BOSS system.

ASSESSMENT

The improved system has been in operation for about six months; the general impression is that it is being used more heavily and that it is considered to be satisfactory. Advantages of the BOSS system compared to other systems are as follows:

1. it has a more precise level of product identification;
2. it contains almost twice as many companies as other systems (excluding the SSC system);
3. it is available in both English and French; and
4. it is relatively inexpensive to maintain and operate.

Furthermore, by confining listings to companies based in Canada, BOSS provides significant opportunities for increasing the use of Canadian suppliers domestically and abroad as well as possibilities for import substitution.

A government-wide sourcing system could prevent duplication of effort and thus lead to some cost reduction. Such a system would need to be flexible and broad enough to ensure that the needs of all, or the majority of departments could be met.

If the program were eliminated, commercial directories would be available. The total number of companies from which to identify potential suppliers or buyers would be reduced; information on service sector companies -- of growing importance in the trade field -- would be unavailable; and possibilities for identifying Canadian based companies would be more limited, thus reducing opportunities for increasing Canadian exports and for substituting imports.

OPTIONS

The study team recommends to the Task Force that the government consider continuing the BOSS program. The study team has five subsidiary recommendations:

1. Continue with BOSS. Evaluate the program after one year to ensure that it remains useful and needed. Furthermore, though difficult to accomplish, the program's impact on the achievement of import substitution and its effects on increasing Canadian exports should be assessed;

2. If trials using BOSS via computer are successful, introduce the on-line system across the U.S., and in other locations where feasible, and provide training for EAC trade staff who use BOSS;

3. Consider discussing with the Department of National Revenue or with Statistics Canada, the possibility of including a BOSS registration form with their requests to companies for information;

4. As a prerequisite to receiving government funds, require applicants for all government assistance programs to provide BOSS with pertinent information for its sourcing system; and

5. Increase efforts to identify import substitution possibilities (and, where possible, export development) based on the system, by compiling appropriate product listings.

As a further option, the team recommends further consideration of the feasibility of establishing a centralized government-wide sourcing system for all departments which currently have their own sourcing lists, with data collection to be undertaken by Supply and Services. Data gathered would have to meet the needs of relevant departments, and the system would be constituted so as to serve the intended purposes of each government program requiring sourcing data, and make these data available to the appropriate user department in the form required and in a timely manner. A government-wide system should be introduced only if it results in cost reduction, without a reduction in effectiveness or efficiency.

TOURISM
(Regional Industrial Expansion)

OBJECTIVE

To enhance Canada's market share in each of its principal tourism markets.

AUTHORITY

Bill C-152, Government Organization Act, 1983; Appropriation Acts.

DESCRIPTION

Tourism support is provided through Tourism Canada which performs two major functions, tourism marketing (largely advertising -- roughly 70 to 80 per cent of its budget) and promotional campaigns in Canada, the U.S. and overseas, and stimulating development of "tourism products" (such as all-season international resorts and, until recently, convention centres). Other activities include public relations and trade shows, together with a variety of incentive and support programs such as Rendez-vous Canada, TourCan and CANMAP, and research dissemination. The policy and research function is currently the top priority. The program is delivered by DRIE domestically (HQ and regional offices) and by EAC outside Canada.

Support is also provided through subsidiary agreements on tourism development with the provinces and territories under Economic and Regional Development Agreements (ERDAs). Eight tourism agreements are in force for a total of $147 million of federal funding over the next five years; agreements with the remaining provinces and the Yukon are pending.

BENEFICIARIES

Major beneficiaries are tour operators here and abroad, provincial and municipal governments, tourist resort owners, travel agents, the various service industries catering in part to tourists (e.g. transportation, accommodation, restaurants), and tourists. Insofar as the tourism industry generates jobs, the Canadian labour force benefits.

EXPENDITURES (millions of current dollars)

ERDAs

Signed Agreements	Term	DRIE Commit.	O/S 31/1/84	84-85	85-86	86-87	87-88	Fut.
NFLD. Tourism II	31-3-89	12.6	-	0.6	3.5	4.0	2.7	1.8
P.E.I. Tourism	31-3-89	5.8	-	1.0	1.0	1.0	1.3	1.5
N.S. Tourism	31-3-89	10.9	-	0.1	1.7	2.4	3.9	2.8
N.B. Tourism	31-3-89	22.0	-	0.7	5.2	5.0	4.4	6.7
Que. Tourism	31-3-89	50.0	-	-	6.0	10.0	13.0	21.0
Ontario Tourism	31-3-89	22.0	-	1.0	6.0	5.0	5.0	5.0
Sask. Tourism	30-9-87	15.0	-	0.1	5.3	3.9	3.9	1.8
N.W.T.Domestic Market	31-3-86	9.7	9.6	2.4	3.2	3.3	.7	0.1
TOTAL		157.6	9.6	5.9	31.9	34.6	34.9	40.7

Tourism Canada

	83-84	84-85	85-86	86-87
Salaries & Wages	5.7	6.1	6.3	6.4
Other O & M	35.8	24.9**	35.9	37.4
Grants & Contributions	18.5	13.8	0.2	0
Capital				
TOTAL	60.0	44.8	42.4	43.8
Person Years *	150	158	156	153

* Excludes DRIE regional offices (roughly 45 person years), and External Affairs resources for program delivery in areas outside Canada, estimated at 105 person years (57 Canada-based and 48 locally engaged staff). For 1985-86 (and succeeding years) includes 10 person years from Comptroller's Office for administration, plus $10 million (Supplementary Estimates).

Note: Assistance for tourism under the Industrial and Regional Development Program ceased in November 1984, with two exceptions due to previous commitments.

OBSERVATIONS

The tourism industry is extremely diverse, consisting of over 60,000 establishments, predominantly small businesses, and employing roughly 600,000 people. Two major factors that hamper the development of an effective national tourism strategy are fragmentation of the industry and the difficulty of representation at the national level, and the desire of the provinces to promote their own industries.

A 1978 private sector Tourism Sector Consultative Task Force Report was concerned in particular with the need for continuing consultation and coordination among governments and industry, the necessity of defining roles, the need to establish a useful data base, and the desire for more favourable tax treatment. Though consultation takes place, these concerns still remain, and the need for human resource training programs has been added.

The considerable number of small operators in this industry benefit from the favourable treatment, tax and otherwise, afforded to all small businesses.

A review of one travel industry development sub-agreement over the period 1978 to 1983 concluded that annual tourism revenues had increased, capital expenditures ($103 million) were made, and jobs were created (1,300 permanent and 600 temporary). The review stated that 55 per cent of tourism projects and studies would not have occurred without the sub-agreement. On the negative side, there were inefficiencies in program delivery, the contribution of the sub-agreement to improvements in the commercial viability of funded projects could not be demonstrated satisfactorily, and the anticipated attainment of a unified and coordinated travel industry had not been achieved.

A 1984 DRIE evaluation of Tourism Canada's marketing program (with a budget between $25 and $30 million and 76 person years) found the program difficult to evaluate in total, but considered that certain activities had achieved some success. Gaps in research were identified, as was the

need to determine the success of marketing efforts. The development program has not been evaluated, so its effectiveness cannot be judged. An EAC 1984 review of program delivery outside Canada suggested that lack of direction from DRIE and the fact that policy-related input from posts abroad was not sought reduced program effectiveness. Tourism Canada considered that opportunities for input were provided and it is currently attempting to strengthen the links in program delivery. Furthermore, Tourism Canada considers that, in some posts, more senior staff should deal with tourism, due to its complexity.

It is generally thought that, of the proportion of Canadians who normally travel abroad, only 20 per cent can be persuaded to vacation in Canada. Thus domestic marketing will have limited impact. Tourism Canada is no longer involved in domestic marketing or in mass consumer advertising.

Duplication and overlap exist in tourism activities between the federal and provincial governments and to a lesser degree with the private sector, at both domestic and international levels. For example the federal and several provincial governments have offices overseas for tourism promotion. The perceived lack of a tourism background on the part of EAC post officers is cited as one of several reasons for some duplication by the provinces. The industry is also critical about placing tourism officers abroad in diplomatic offices. ERDA tourism sub-agreements, which tend to be general and without specific goals, have led to some reduction in duplication. Although opportunities for synergism exist, benefits are unknown. The need for good basic research data is a common need and Tourism Canada has begun to address it.

ASSESSMENT

Tourism Canada may be prevented from maximizing its effectiveness because:

a. a number of external constraints are imposed (including emphasis on regional development, small business needs, and concern for all provinces regardless of tourism base);

b. the program delivery mechanism is unwieldy and not cohesive;

c. continually delayed approval for additional funds for marketing (recently resolved) reduced effectiveness;

d. the tourism industry is markedly diverse, resulting in the need for consultations with a large number of organizations; and

e. there are a number of parallel provincial programs.

The rationale for significant federal involvement in tourism is plausible at the international level; at the domestic level initiatives should be largely provincial or private sector-oriented.

Although the tourism industry is considered by some to be an employment generator, particularly for semi- and unskilled workers, the seasonal element tends to lead to part-time rather than full-time jobs, with a possible corresponding dependence on UIC payments.

Delivery of the tourism program involves 158 person-years in Tourism Canada (roughly half in marketing activities) plus 45 DRIE staff delivering the program in the regions and the 105 individuals delivering the program outside Canada on behalf of EAC, a total of roughly 300 person-years. The total resource levels may need to be rationalized now that tourism is excluded from IRDP, 12 sub-agreements will be in operation rather than five, and less emphasis is placed by Tourism Canada on the domestic market. In addition to the seemingly high number of person-years involved at the federal level, provincial resources are involved in much the same activities.

Duplication in tourism between the federal and provincial governments may result in an inefficient use of resources. Some improvement has occurred recently with the concentration of Tourism Canada's marketing activities on international rather than domestic markets. Domestic tourism development is likely to be handled better by the provinces who are closer to their industries. The major responsibility should be provincial, with the federal government concentrating on international marketing, the dissemination of relevant information, and a degree of co-ordination. By the same token the provinces should be persuaded to remove themselves from the international markets and leave that activity to the federal government.

(Persuasion would require assurance that federal staff are professionals and can produce the same results as provincial staff). ERDA consultations might prove to be a vehicle to accomplish these goals; alternatively, provinces could be given the responsibility for domestic tourism decisions involving Crown contributions up to, say, $250,000.

Staff in Tourism Canada and EAC acknowledge problems resulting from joint delivery of the program; a speedy resolution is required, and the roles and responsibilities of Tourism Canada, EAC and DRIE regional offices need to be clarified in order to increase effectiveness.

The existing ERDA sub-agreements are in effect for the next five years, with opportunities for review annually. Future ERDA sub-agreements and annual reviews should ensure that funds are channelled effectively. The tourism facilities in Canada provided for in these agreements should be driven by private sector investment rather than public sector decisions. This investment can be stimulated by federal provision of sector wide market research and analysis.

OPTIONS

Although consultations on tourism are scheduled, the Task Force might wish to consider the need for disentanglement of the federal role in tourism as follows.

The federal government could confine its activities to:

a. international on-the-ground marketing and intelligence gathering, where it should seek an end to provincial duplication, though provincial inputs to advertising campaigns would not be ruled out;

b. international advertising;

c. market research, analysis, and information dissemination;

d. coordination of all federal programs bearing on the success of tourism; and

e. acting as a focal point for provincial and industry contact and liaison.

The last four would continue to be the responsibility of Tourism Canada, while (a) would be executed by External Affairs using personnel properly trained in tourism promotion and commercial intelligence gathering, with funding, work programs and policy guidance set by Tourism Canada. International advertising could be designed by Tourism Canada in conjunction with the provinces and posts abroad. Support for specific domestic tourist facilities would be left primarily to the private sector and the provinces. Dollar and person year savings should be possible.

As an optional extra, whether the above or the status quo is adopted, the government might consider contracting all non-North American marketing to Air Canada, Wardair, CP Air (or other major carriers) or to the private sector (particularly tour operators) under DRIE's direction. Improvements in both efficiency and effectiveness ought to be possible even with reduced resources.

THINK CANADIAN
(Regional Industrial Expansion)

OBJECTIVES

To raise consumer awareness and encourage the purchase of Canadian-made products through a media advertising campaign directed towards consumers, manufacturers, retailers and industrial and institutional purchasers.

AUTHORITY

Cabinet Decision - "Shop Canadian: A Domestic Marketing Campaign" T.B. 791996.

DESCRIPTION

This is a two phase, $20.5 million program. The first phase, a "Think Canadian" advertising campaign, was launched in June 1984. It consisted of a series of television commercials and mall posters intended to create a general awareness of a new program called "Think About It - Think Canadian!" aimed at encouraging the purchase of Canadian-made goods.

The two main objectives of Phase II are to encourage active participation in the program by institutional, commercial, service and manufacturing sectors, and to increase purchaser awareness and effect a change in buying habits whereby more frequent consideration is given to Canadian products. This phase will include such activities as advertising, mall exhibits, exhibitions, individual visits to retailers, participation at reverse trade fairs, seminars and trade publications.

The major target groups are consumers, retailers, institutional and industrial purchasing agents, manufacturers, labour, provincial governments and service industries.

The program is to terminate in fiscal 1985-86.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86
Budgetted Costs	0.5	10.0	10.0
Person Years	9	9	9

BENEFICIARIES

Canadian manufacturers, retailers, consumers, and industrial and institutional purchasers.

OBSERVATIONS

This program was rushed through in 1983 by the former government and start-up was delayed in early 1984 because of changes going on in the government. As a result, the funds designated for 1983-84 lapsed and $5 million of the $10 million identified for 1984-85 have also lapsed.

The department responsible for this program has recently reworked its action plan and has concluded that it can achieve the objectives of the program with a savings of about $5.5 million and a reduction of four person years but would like the program extended to 1986-87 because of the delay in start-up experienced in 1984.

Although there is some overlap with similar provincial programs, only Quebec has chosen not to coordinate its program with the federal one.

ASSESSMENT

The rationale of this program is valid, and could result in import substitution.

OPTIONS

1. Continue the program but reduce the level by $5.5 million and four person years;

2. Undertake an informal intermediate assessment at the end of fiscal year 1985-86. If the results are positive, continue the program until the end of fiscal 1986-87; if negative, discontinue the program.

CO-OPERATIVE OVERSEAS MARKET DEVELOPMENT PROGRAM (COMDP)
(Regional Industrial Expansion)

OBJECTIVE

1. to preserve and extend market acceptance achievements to date;

2. to optimize the market demand and value for Canadian wood products;

3. to achieve greater market diversification for primary wood products;

4. to encourage and accommodate a more active participation in overseas markets by interior mills;

5. to facilitate a change in product mix and a trend to value-added products.

Currently the program is confined to British Columbia. It is anticipated, however, that it will be extended to Quebec within the next few weeks.

AUTHORITY

For British Columbia, approved by TB (TB774239) and Order in Council (1981-70). (Current five-year COMDP extends from January 1981 to December 1985.) For Quebec a five year COMDP is awaiting TB approval.

DESCRIPTION

COMDP, originally established in 1971 to help reduce the dependence of British Columbia's wood products industry on the North American market, is not a program in the traditional sense, but consists of matching contributions from federal and provincial governments and the pertinent industry association (in this case COFI -- the Council of Forest Industries of British Columbia) for industrial and trade development purposes.

The program is basically marketing, consisting of promotional activities mainly through the establishment and operation of offices abroad staffed by COFI technical representatives who ensure awareness and acceptance of

Canadian wood products in foreign markets, and trade missions to and from countries which offer potential markets. Planned activities are based on a COFI-prepared work plan approved by all three parties. The federal government undertakes program review, administration, and monitoring foreign codes and standards (acting through EAC if countervail-type activity is suspected). Its most important task is gaining acceptance of Canadian wood codes and standards by other countries. Once Quebec is included in the program, federal activity will extend to ensuring that one province will not be promoted at the cost of the other.

BENEFICIARIES

Primary beneficiaries are the B.C. wood companies. All Canadian wood companies benefit from the acceptance of Canadian codes and standards outside Canada, and benefit further because Canadian competition for the U.S. market is effectively reduced when B.C. directs its exports to other overseas markets. The Canadian public benefits due to increased trade. Quebec wood companies will be direct beneficiaries in the future.

EXPENDITURES (millions of current dollars)

Federal government:
(IRDP funding)

British Columbia COMDP	**83-84**	**84-85**	**85-86***
Actual expenditures	1.5	1.6**	n.a.
Maximum level of contributions permitted	(2.1)	(2.3)	(2.5)
Person Years (estimated)	1.0	1.0	1.0

* Current expiry date 1985.
** Budget.

For the proposed Quebec COMDP, the funding level is $1.2 million over the next five years. It is anticipated that at least one additional person-year will be required.

OBSERVATIONS

A 1984 mid-term review of the program by the COMDP working group considered that, although difficult to isolate COMDP results completely, the program was effective in aiding market diversification for B.C., in developing new

markets and improving market access, in increasing exports, in gaining acceptance of Canadian wood products, building codes and product standards outside Canada, and in increasing the awareness and participation of companies from the interior of B.C. in overseas markets. The program was judged to be cost effective, and its tripartite relationship was considered successful.

The Forest Industry Advisory Council, fully in favour of the program and convinced of its effectiveness, suggested that it be extended to all provinces. Due, in part, to the inability of provincial associations to provide funding, most provinces have been unable to participate. The incentive for Quebec is the potential $200-$300 million market in Europe. The Quebec lumber industry considered that, without federal participation, this market could not be tapped.

There may be some hesitance on the part of provinces to participate in the COMD Program if they feel such action would lead to requests for similar assistance by other industries.

COFI values the Program highly, and is seeking an extension of the Program beyond 1985. COFI considers that, in addition to the funding provided, federal participation in COMDP makes the industry aware of and therefore able to use other federal programs and alleviates confusion in knowing which federal department to contact (DRIE and EAC both provide programs). Furthermore, the tripartite arrangement is considered integral to good program results.

There is some overlap between COMDP activities and the EAC trade commissioners' responsibility for identifying markets abroad. It is considered, however, that EAC trade staff do not generally have forestry experience, and, furthermore, that the use of COFI professionals with experience in building standards and the lumber industry, and with a direct interest in the program outcome, will lead to better results. Overlap exists to a lesser extent between COMDP and PEMD.

The review indicated an on-going need for COMDP in order to maintain acceptance of Canadian wood products in the face of changing codes and standards and to strengthen the industry's competitiveness. Canada's current competitive position is particularly sensitive, with the U.S. threatening to request voluntary quotas on wood products. The need for increased diversity is clear.

The introduction of timber frame housing in the U.K. is due, in part, to COMDP's success in gaining acceptance of Canadian standards and wood products (sales have risen to 8,000 units from zero in 1972). Canadian standards for this product are now the national standard in the U.K. and France.

COMDP is directed at assisting the Canadian forestry industry as a whole, in contrast to the many programs which only assist individual companies.

ASSESSMENT

The mid-term review carried out by the COMDP working group attempts to be thorough and provides a balanced assessment.

The forestry industry, one of Canada's major traditional resource industries, is facing problems worldwide, in particular steep competition and overcapacity. The development of new markets for Canadian lumber is essential, but no more so than the need for a change in product mix and a switch to value-added products, a policy Canada has attempted to follow in all its resource-based industries. Program objectives are still valid and have been achieved generally. Indirect benefits are also significant.

By insisting on equal financial contributions from all three parties, all have a stake in COMDP's success, as opposed to programs where the federal government takes greater risk. This factor is likely to contribute significantly to the Program's success.

Federal funding has been provided for the B.C. program for almost 15 years. If federal funding were to be withdrawn, it is thought likely that the B.C. government would continue COMDP-type activity. It is not considered likely that the Quebec government would do so.

Federal input related to gaining and maintaining acceptance of Canadian wood product codes and standards may be of considerable importance in diversifying or expanding our export markets.

This unique co-operative approach may have potential for other industrial groups and should be examined by DRIE.

OPTIONS

The study team sees the following options, each with its own implications:

- **Continue the program.** The program works and provides direct benefits for B.C. and indirect benefits to all Canadian lumber companies. Consideration should be given to reducing the proportion of federal funding.

  It should be noted that this program is currently funded under IRDP-Marketing. The study team is recommending that this element be dropped and marketing activities be included under ERDA sub-agreements. If this recommendation is accepted, funding for COMDP could perhaps be provided through a special ERDA sub-agreement.

- **Discontinue federal funding.** Since the primary beneficiaries are lumber companies in provinces in which forestry is a key industry and since the amount of funding is limited (just over $1 million annually in B.C. and $200,000 in Quebec), the provinces should not face insurmountable difficulties continuing the program, though it might be reduced in scope. Federal monitoring would be necessary to assure foreign buyers that standards and codes from all Canadian provinces are equally acceptable and to ensure that one province was not promoted at the expense of the other. It is not clear, however, that the program would be equally successful without federal participation, or that the total amount of current federal funding would be saved if monitoring activities were continued.

IMPORT REVIEW BODIES

OBJECTIVES

This report reviews three administratively separate bodies, reporting to three separate Ministers, but sharing a commonality of purpose: Tariff Board - Anti Dumping Appeal (TBADA); Canadian Import Tribunal (CIT); and Textile and Clothing Board (TCB).

TBADA - To deal with appeals from persons who consider themselves aggrieved by a decision of the Deputy Minister of National Revenue, Customs and Excise with regard to the imposition of an anti dumping duty on imported goods.

CIB - To enquire, by way of formal hearings and other investigations, as to whether the importation of goods is causing material injury to Canadian industry or is retarding the establishment of production in Canada; and to determine appropriate action.

TCB - To conduct enquiries and independent investigations to determine whether imports of textiles and clothing are causing or threatening to cause serious injury to Canadian production and employment. To examine the plans of Canadian producers to increase their ability to meet international competition in Canada, and to make recommendations to the federal government as to whether or not special measures of protection are warranted against certain imports.

AUTHORITY

TBADA - Tariff Board Act, 1970 and Special Import Measures Act, 1984.
CIB - Special Import Measures Act, 1984.
TCB - Textile and Clothing Board Act, 1971.

DESCRIPTION

TBADA -- As constituted under the Tariff Board Act, three or more of the seven members appointed by the Governor in Council are empowered to handle appeals of rulings made by the Deputy Minister of National Revenue, Customs and Excise. Any order, finding or declaration of the Tariff Board is final and conclusive, subject to further appeal to the Federal Court of Canada.

CIB -- An independent, quasi-judicial tribunal consisting of not more than five members appointed by the Governor in Council for a period of seven years. Individual complaints with regard to specific import situations are handled. The Tribunal is deemed to be a court of justice for the purposes of Section 172 of the Customs Act. Every order or finding of the Tribunal is final and conclusive. The CIB is the successor to the Anti Dumping Tribunal. (The Tribunal was set up under the Anti Dumping Act of 1969 to supplement the appeal process available under the Tariff Board Act.) Under the terms of reference, hearings are formal and decisions are based on violations of established rules.

TCB -- The Board is made up of three members appointed by the Governor in Council for a period of seven years. The Board may on its own initiative, or following receipt of a complaint, conduct an enquiry to determine if the complaint is valid. Hearings held are in public or in camera as determined by the Board and depending on the nature of the information to be disclosed.

BENEFICIARIES

The person or persons who consider themselves to have been aggrieved.

EXPENDITURES (millions of current dollars)

As included in the 1984-85 estimates:

	Salaries and Wages	Grants and Contributions	Person Years
TBADA	0.4	0.1	9
CIT	1.5	0.2	31
TCB	1.2	--	17

OBSERVATIONS

The mandates of the three bodies are similar in that their activities relate to injury as a result of the dumping of imported goods.

The Tariff Board concerns itself with the relationship between goods brought into Canada, similar goods produced in Canada and the rate of duty judged appropriate to protect the Canadian manufacturer and consumer. The TBADA budget includes provision for appeals related to excise tax, which accounts for most of their activity. It was stated that there had been very few anti-dumping appeals in recent years.

The CIB issued a total of 34 findings during 1984, up from 19 in 1981. This included 14 review findings, compared to 6 in 1981. In addition, the Tribunal commenced a footwear and skates enquiry at the request of the Governor in Council.

The TCB was set up in 1971 to deal specifically with the importation of textile and clothing goods said to cause serious injury to the production of similar products in Canada. If satisfied that injury is being caused, the Board files a written report with the Minister of Regional Industrial Expansion recommending protection using quotas.

ASSESSMENT

The obvious question which arises is whether there is sufficient commonality of purpose that the three functions should have a closer working relationship. This seems to be a viable approach, though some adjustment in attitude would be required.

A second question is whether the benefits of existing reporting relationships would be lost if these three bodies were amalgamated.

While all three functions can be considered as being regulatory in nature, the Tariff Board and CIB relate basically to the observance of established rules and guidelines and they deal with specific import transactions. TCB concerns itself with the imposition and maintenance of quotas to protect Canadian manufacturers, specifically in the textile and clothing industry.

Loss of expertise if the TCB were merged with the other two could be compensated for by maintaining sector specific skills within DRIE.

OPTIONS

The study team recommends to the Task Force that the government consider combining all three functions, Canadian Import Tribunal, Tariff Board and Textile Clothing Board under one reporting relationship, preferably the Minister of Finance. Research expertise currently available within TCB should be extended to the newly combined entity.

ATLANTIC AND MARITIME FREIGHT RATE ASSISTANCE
(Canadian Transport Commission)

OBJECTIVE

This review covers two programs, the Maritime Freight Assistance Program and the Atlantic Region Freight Assistance Program. Their common objective is to subsidize the cost of transportation of commodities within and to the western edge of the four Atlantic provinces and northeastern Quebec, thereby enabling Atlantic products to be priced competitively in the larger western markets.

LEGISLATIVE AUTHORITY

Maritime Freight Rates Act, 1927
Atlantic Region Freight Assistance Act, 1969

DESCRIPTION

Payments are made to carriers in accordance with amounts specified by the Canadian Transport Commission. These payments relate to specified percentages of the amounts received by carriers for the eligible movements of goods, within and, for westbound goods, to specified rail and highway points on the western edge of the "select territory", in accordance with the regulations. The Department of Transport formulates program policy and the Canadian Transport Commission administers the program.

Subsidy Types	**Subsidy Rate (per cent)**
Basic Westbound Rail Subsidy (MFRA)	30
Intra-Regional Rail Subsidy (MFRA)	15
Intra-Regional Trucking Subsidy (ARFAA)	10
Basic Westbound Trucking Subsidy (ARFAA)	30
Selective Westbound Subsidy (ARFAA)	20

BENEFICIARIES

Atlantic producers, shippers, and approximately 3,500 trucking, rail and marine companies.

EXPENDITURES (millions of current dollars)

	82-83	83-84	84-85	85-86	86-87	87-88
Salaries	1.5	1.5	1.6	1.6	1.6	1.6
O & M	.2	.2	.2	.2	.2	.2
Grants & Contrib. - both prog.	65.3	54.8	57.7	65.5	68.2	70.9
TOTAL	67.0	56.5	59.5	67.3	70.0	72.7
Person Years	52	51	50	50	50	50

OBSERVATIONS

Payments for highway shipping have been growing constantly with trucks receiving over 75 per cent of the intra region subsidy or 67 per cent of total program expenditures if the westbound subsidy is also factored in.

Intra-regional subsidy payments, which are about 60 per cent of the total, are concentrated in certain bulk commodities:

54 per cent forest products
21 per cent food/fish groups
13 per cent mineral production.

Westbound subsidies are less concentrated along commodity lines:

36 per cent food/tobacco/fish
27 per cent forest products.

Almost half of the westbound subsidy payments are to firms who are shipping principally food products from the "select territory" portion of Quebec to the rest of Quebec.

A study done for the Department of Transport found the program to be not very effective. The consultant undertaking the study proposed some adjustment to the program, i.e. elimination of the intra-regional subsidy, elimination of certain commodities included in the westbound subsidy (household effects and bulk fluid milk). No changes have been made to the program since the completion of this study.

The Department of Transport has tried to add some additional rigour to the program to make it more effective by tightening the criteria for subsidy determination. Also the Canadian Transport Commission has tried to make the program more efficient with increased automation and improved staff.

These programs have been in existence for decades and have been studied several times. Various organizations in the Maritimes, most notably the Atlantic Provinces Transportation Commission, and the Council of Maritime Premiers, have strong views on the need to continue the subsidy.

ASSESSMENT

As a proportion of values added or shipped within the select territory, the ARFAA and MFRA subsidies are all but meaningless. It is inconceivable that the Atlantic provinces, asked what they would do with $70 million a year in the absence of these subsidies to improve the regional economy, would choose the present pattern of transport subsidies.

OPTIONS

The study team sees two options, either of which could be implemented through the Budget, namely:

1. to freeze payments at the 1984-85 level for up to two years, pending the report of a Commissioner, appointed under the Inquiries Act and acceptable to the Atlantic provinces as well as the federal government, on a better way to spend half the present subsidy. In the absence of a Commission report, the federal government would legislate an end to both Acts in 1987 and increase ERDA programming to the region by $30 million annually; and

2. alternatively, introduce legislation to repeal both Acts.

SPECTRUM MANAGEMENT PROGRAM
(Communications)

OBJECTIVES

To promote the orderly development of telecommunications in Canada and to guard and promote Canada's interests in international areas of communications.

AUTHORITY

Radio Act, Broadcasting Act and Treaties

DESCRIPTION

This report is a general assessment and consolidation of the following DOC programs:

DOC 23	Examination
DOC 102	Regulations, Policies and Standards
DOC 103	International Planning
DOC 104	Licencing
DOC 105	Broadcasting Certificate
DOC 106	Engineering Support
DOC 107	Spectrum Services
DOC 108	Quality Control

They are combined as resources can be moved by the Department within these sub-headings as work load dictates. Excluded are those sub-headings that do not impact on the public such as the preparation and maintenance of procedures and technical standards for strictly internal use. Included is DOC 23 which was not assigned to the study group but is considered to be within the scope of this assessment.

The electromagnetic spectrum is an international resource and Canada's access to it and responsible usage is based on treaty and prudent management. The various frequency bands have different features and benefits requiring responsible control and supervision to allocate this finite resource to its best purpose. Continual monitoring is necessary to trace interference, illicit usage and compliance with contractual agreements. DOC is the only agency in Canada that has a Spectrum Management role.

The licenced uses of the spectrum have a commercial value and cost recovery is to some extent, feasible. The users are known because a licence is required to transmit and illicit use is readily detectable.

A fifteen-year forecast predicts very heavy congestion of the radio frequencies as new needs, new techniques, and continued price erosion in electronic products increase the demand for channel space.

The in-house technology and expertise of the department have significant market potential as other nations are forced to exercise tighter control of their electromagnetic environment. The initiative shown by the department in assisting the Canadian private sector to bid on such export opportunities is worthy of note.

EXPENDITURES (millions of dollars)

	84-85	85-86	86-87	87-88
Salaries & O&M	43.0	45.6	44.1	44.1
Grants & Contributions	37.5	45.0	45.0	45.0
Capital	1.7	1.8	2.1	2.1
TOTAL	82.2	92.4	91.2	91.2
Revenues (CRF)	16.0	34.0	34.0	36.0
Person Years	910	914	913	913

BENEFICIARIES

The general public, various federal, provincial and municipal bodies, and the communications industry.

OPTIONS

The study team recommends to the Task Force that the government consider maintaining the program on a cost-recovery basis wherever feasible. The cost recovery, however, should be equitable and the present practice of not recovering a fair share of costs from provincial Crown corporations requires re-assessment.

Changes to the Act are under review and some consideration should be given to deriving revenue from the issuance of Technical Construction and Operation Certificates now done at public expense. This could be done via a "Blue Book" transfer of cost to CRTC who can recover via the Broadcast Licence fee structure.

The commercial potential of providing turn-key Spectrum Management System to other nations should be explored or recognized as an "invisible export" of a unique DOC capability.

TERMINAL ATTACHMENT PROGRAM
(Communications)

OBJECTIVE

To ensure the continued integration of the national resource of the public access telecommunications network while permitting its users to own the the terminal equipment on their premises.

AUTHORITY

Department of Communications Act.

DESCRIPTION

Terminal Attachment Program (TAP) develops national standards and procedures, certifies and tests terminal equipment for direct attachment to the federally regulated telecommunications networks. This satisfies the users' desire for more choice and innovation in equipment availability and safeguards the traditionally high standard of service provided by the Canadian carriers, thereby protecting the overall integrity of the public-switched telephone network.

EXPENDITURES (millions of dollars)

	83-84	84-85	85-86	86-87	87-88
Salaries	0.5	0.7	0.7	0.7	0.7
O&M	0.1	0.1	0.2	0.2	0.2
TOTAL	0.6	0.8	0.9	0.9	0.9
Revenues (CRF)	1.0	1.0	1.0	1.0	1.0
Person Years	15	18	18	18	18

BENEFICIARIES

Manufacturing and supply industry. The standards produced are directly used by the regulatory authorities in Canada (CRTC, provincial) under approved tariffs. TAP affects approximately $4 billion in investment in telecommunications equipment (both commercial and residential).

OBSERVATION

Regulation of the telephone industry throughout the country is fragmented because CRTC has no jurisdiction over telephone companies owned by provincial governments. To ensure that consumers and manufacturers of terminal equipment see a consistent service and a common market, a truly national policy should be set to include co-ordination of deregulation initiatives.

ASSESSMENT

The program appears to be achieving its intended purpose. The program addresses the requirement to balance the concerns of the owners of the telephone network regarding potential harm that may stem from technically unrestricted connection of products by manufacturers, and the desire of manufacturers to offer innovative and competitive products for existing and new telecommunications services. The role of DOC is appropriate, as it is neutral, simply setting standards that allow the regulators to deregulate.

The business environment in which this program exists consists on the one side of the major carriers and on the other the myriad of innovative manufacturers . The customer base is rapidly growing as more and more products are developed for connection at rapidly declining prices. The program, in summary, gives the Canadian consumer the right to plug into the telephone network.

OPTIONS

The present system is moving rapidly to full cost recovery status and this is the option which the study team recommends for consideration.

As the service is partially private some five companies are providing a certification service to DOC standards -- the "costs" recovered by DOC for certification of products should be slightly in excess of the private sector fees.

REMOTE SENSING
(Energy, Mines and Resources)

OBJECTIVES

1. To improve remote sensing technology; and
2. To facilitate the acquisition and dissemination of remotely sensed data and derived information needed for the management of Canadian natural resources and for the monitoring of human activity.

AUTHORITY

The Resources and Technical Surveys Act

DESCRIPTION

Remote sensing is the term used to describe the process of acquiring earth science information by means of infrared and other photography, radar measurements or other sensing techniques. Federal remote sensing activities are carried out by the Canadian Centre for Remote Sensing (CCRS), located within the Research and Technology Sector of EMR. CCRS operates, under industrial contract, three aircraft equipped with different types of sensors. Through a data reception and processing facility at Prince Albert, information is received from the U.S. LANDSAT and, in the near future, will be received from the French SPOT satellite.

CCRS works with resource management (e.g., forestry) and environmental agencies at the federal and provincial levels to develop technology and uses for remotely sensed data. Through joint projects with universities and industry, CCRS has worked to develop world-class competence in ground station, image analysis and radar processing technologies within Canadian industry.

BENEFICIARIES

Beneficiaries include exploration companies, federal and provincial resource management agencies in forestry, agriculture, water management, oceanography and the Canadian remote sensing industry.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Salaries and Wages	5.2	5.1	6.4	6.4	5.0
Other O & M	8.8	9.9	17.5	14.0	11.0
Capital	13.5	11.2	18.2	14.4	3.5
Grants & Contributions	0.8	-	13.3	12.3	8.8
TOTAL	28.3	26.2	55.4	47.1	28.3
Revenue*	0.7	0.7	0.7	0.7	0.7
Person Years	124	127	155	155	124

OBSERVATIONS

The Canadian Centre for Remote Sensing (CCRS) plays a key role in technology development and transfer and remote sensing data acquisition. CCRS has an extensive network of users with which it consults through an advisory committee. The committee is drawn from the private sector, the academic community, provincial resource management departments and federal agencies. Thus, there may have been an over-emphasis on remote sensing technology with little concern for the economics or marketing of the product or development of innovative uses for the data.

There is no integrated community of remote sensing users. Federal and provincial agencies concerned with resource management are clients as are some resource companies, such as oil exploration concerns and educational institutions. Futhermore, airborne technology works well in fields such as forestry and water management but satellite imagery is more useful for oceanography and atmospheric monitoring, for example. CCRS's response to this diversity seems to be to acquire access to as many technologies and data sources as possible, with little regard to priority uses or users.

A program evaluation, carried out in 1983, examined the LANDSAT program and the technology transfer process. Users expressed concern about data continuity and the cost of obtaining data. CCRS was seen as emphasizing technology development to the detriment of applications development and data utilization. Expressed another way, there appeared to be confusion between the research role and the production role of the Centre.

One worrisome aspect of remote sensing is the concern of users regarding "reasonable" fees for information. Users claim they are not willing to commit to remote sensing because there is no guarantee of continuity in data availability. On the other hand, it is difficult to justify significant public expenditure to create a service for which there is no clear market. Furthermore, there is a question whether some CCRS activities could not be privatized if profitable services were created through greater emphasis on practical applications development.

The U.S. experience is instructive. For several years, the Administration has been trying, to no avail, to privatize its LANDSAT system. The subsidy demanded by industry was simply greater than Congress was willing to contemplate. This seems to imply there is no money in remote sensing at this time.

Remote sensing accounts for 42 per cent of the current Canadian Space Plan budget during the period 1984-85 to 1986-87. This reflects a deliberate move to devote more resources to remote sensing and rather less to communications technology. It appears to have been the right move. The MSAT project which, a few years ago was expected to be fully government funded, will now be at least 80 per cent funded from other sources -- perhaps indicating a maturity in that sector which is nowhere in evidence in the remote sensing field. Further, since Canada's is quintessentially a resource-based economy, it seems reasonable to devote what high technology advantages Canadian industry has to more efficient and effective exploitation of the resource industries.

The Government will be faced in the fall of 1984 with a decision on whether to proceed with the RADARSAT program with an estimated $300-350 million price tag over six to ten years. Approval would lead to Canada having its own next generation of remote sensing satellites, in co-operation with the U.S., Great Britain and possibly other

countries. As well, the need for RADARSAT data to support arctic transportation of oil and natural gas -- the original reason for starting the project -- has receded into the future. Nonetheless, the potential value of the imagery from RADARSAT for geology, agriculture, forest management, environmental monitoring and sales to other countries is difficult to ignore.

ASSESSMENT

Remote sensing data will assume vastly more importance in the future. The U.S., Europeans and Japanese are all active in the field. Until now, Canada has been successful in negotiating joint participation in new ventures or at least access to the resulting data. Proponents claim this is in no small part because Canada has been able to ante up at the bargaining table.

An emerging issue is access to remotely sensed information. In the past the West has sustained a free flow of information. For the future, there is a concern that those with the data may employ copyright protection, selling exclusive rights. Without leverage, Canada could be in a situation of having limited access to information pertaining to domestic resources.

It seems clear that it is in the national interest to stay in the remote sensing field. The questions are to what extent and at what price.

OPTIONS

The study team notes that although remote sensing has not yet reached its full potential, the user community and Canadian industry have developed considerable sophistication, in part because of the technical leadership of CCRS. The role of CCRS should therefore be re-examined from time to time because it exists in a rapidly evolving environment. Particular reference needs be made to the dual aspects of:

- the extent to which the development of the new technology can be turned over to the maturing and healthy industrial sector; and
- the extent to which the commercial application of the acquired data can be developed by the end user.

Future analysis of RADARSAT should include consideration of the cost/benefit of obtaining the next generation of remotely-sensed data from sources other than a domestic satellite.

SURVEYS AND MAPPING BRANCH
(Energy, Mines and Resources)

OBJECTIVES

To ensure the availability of geodetic, topographic and selected geographic information for resource, land and engineering works management,urban development, transport, defence and public safety.

AUTHORITY

Resources and Technical Surveys Act 1966-67; Government Organization Acts 1970 and 1979; Canada Lands Surveys Act.

DESCRIPTION

Surveys and Mapping is one of six branches of the Earth Sciences Sector of EMR. The Branch is responsible for a national network of survey markers which are required to obtain measurements of the Canadian landmass. This information is used to produce a variety of maps and charts depicting Canada's physical features.

In addition, the Branch is responsible, under the Canada Lands Surveys Act, for the conduct of surveys on all Canada Lands -- including the offshore and Indian Reserves. Also resident in the Branch is the Canadian Section of the International Boundary Commission -- established by bilateral treaty to ensure that it is possible to locate precisely any point on the Canada/U.S. boundaries. Finally, the Branch produces aeronautical charts and flight information and must maintain a capacity to respond to Canadian needs in a national emergency.

The entire country has been mapped at the standard small scale (1:250,000). The Branch has produced 75 per cent of the medium scale (1:50,000) maps required to complete basic federal mapping. At current production rates, medium scale mapping will be complete in graphical form in about 10 years.

BENEFICIARIES

Diverse -- ranging from individual consumers to exploration companies to other government agencies and the military.

EXPENDITURES (millions of current dollars)*

	83-84	84-85	85-86	86-87	87-88
Salaries & Wages	32.9	34.2	35.3	33.9	33.9
Other O & M	16.4	17.4	18.8	19.5	19.3
Grants & Contrib.	-	0.1	0.1	0.1	0.1
Capital	5.2	3.9	5.1	6.2	5.8
TOTAL	54.5	55.6	59.3	59.7	59.1
Revenue	3.8	4.2	4.6	4.6	4.6
Person Years	923	899	894	895	895

* Does not include costs of Sherbrooke relocation.

OBSERVATIONS

In 1978 the Surveys and Mapping Branch initiated a comprehensive study to determine user satisfaction with its products. Since then, the Branch has undergone an A-base review, a program evaluation, and an update of the user study. Probably no organization has been more studied.

As a result, the program issues are well documented and detailed. In general, the Branch was not found to have excessive resources. Agreement has been reached with the provinces most active in surveying and mapping to investigate the potential for exchanging digital data and thereby reducing program costs to both levels of government. It should also be noted that National Defence retains a mapping and surveying capability and, as part of its training program, conducts surveying operations on Ellesmere Island. The data is supplied to EMR.

Surveying and mapping continues to undergo tremendous technological change. Storage of data in digital form allows data of different levels of detail to be merged, and, with proper standards in place, avoids collection duplication. It also introduces tremendous flexibility to generate products tailored to user needs. The sector will continue to undergo change with advances in airborne and satellite technology, including the introduction of a global positioning system of satellites. These changes mean that the Branch will require fewer, but more highly skilled, personnel and greater short-term investment in capital equipment. A retraining program has been launched and a capital replacement plan approved.

In January, 1984, the decision to relocate all phases of map production to Sherbrooke was confirmed. About 400 positions would be affected. The relocation is currently on hold.

ASSESSMENT

Because of the multiple users of land survey data and the varying level of detail required, there is a real risk of duplication of effort by the various agencies engaged in the acquisition of the basic data. The Branch is aware of this and attempts to co-ordinate its activity with other groups. In the future, Surveys and Mapping Branch should be able to update its medium scale maps by tapping into the more detailed data collected by local or provincial authorities. This, together with completion of basic mapping, will reduce future survey resources requirements of the Branch.

There is no discernible economic advantage in relocating map production to Sherbrooke. It is expected to lead to duplication of costly equipment and difficulty of access for clients. The move is estimated to cost $82 million (1983 dollars) over the eight years it will take to complete.

OPTIONS

It is the view of the study team that medium scale mapping should be completed by the federal government. The rate of completion is a matter of discretion. The most efficient way would be to complete this finite task as quickly as possible. The Branch will reach the reduced equilibrium maintenance level in less than the currently projected 10 years. The work could be contracted out -- at somewhat greater cost -- to avoid later staff redundancies. By the same token, the work could be decelerated, and a lower level of ongoing resources would be required. A sustainable level of reduction could be developed with the Branch.

Regardless of the mapping completion rate chosen, there are choices about the prices to be charged for mapping products. Currently, product prices are determined by an Order-in-Council which directs that they be set to recover the incremental cost of production. At the moment, prices recover about 80 per cent of the cost, and the Branch has developed a proposal to move them to 100 per cent over two

years. Revenue increases are estimated to be $0.8 million in 1985-86 and $1.5 million in 1986-87. Nonetheless, the Branch judges prices will still be less than market values. It appears feasible to move to a "full" market price over the subsequent two years -- generating net additional revenue of $3.0 million in 1988-89. In future, cost recovery should be structured to reflect the evolving ability of the Branch to provide custom-made maps and documents.

Finally, the study team recommends to the Task Force that the government consider cancelling the relocation plans to Sherbrooke at the earliest possible time.

SMALL CRAFT HARBOURS
(Fisheries and Oceans)

OBJECTIVE

To provide, maintain and manage, consistent with fisheries policy, regional harbour systems to accommodate the commercial fishing fleets and to assist in the provision, maintenance and management of recreational harbours.

AUTHORITY

The Fishing and Recreational Habours Act.

DESCRIPTION

The small craft harbours program provides on-going maintenance and day-to-day operation of regional harbour systems to accommodate commercial fishing fleets and assists in the development, maintenance, and operation of recreational harbours. Approximately 60 per cent of the regular budget is for capital expenditures to replace or improve existing harbours. The program services 2,232 harbours.

BENEFICIARIES

Provincial governments, municipalities, fishermen and harbours users.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Salaries & wages	3.8	3.7	3.7	3.8	4.0
Other O&M	13.7	14.6	14.6	15.2	15.8
Grants and Contributions	1.3	1.4	1.4	-	-
Capital	17.9	25.1	24.2	25.2	26.2
TOTAL	36.7	44.8	43.9	44.2	46.0
Person Years	112	114	114	114	114

OBSERVATIONS

The program has developed a two-way classification system for the harbours it services. The level of service classification specifies the maintenance standards (repairs,

dredging) for the harbour based on volume of traffic. There are four categories, ranging from high to minimal use.

Class		No. of Harbours
A	(High use)	220
B		455
C		1172
D	(Low use)	385

Most harbours in the lower use categories are on the East Coast.

The level of service also depends on the type of use made of the harbour, namely, fishing, recreational or mixed. There are 800 strictly recreational harbours, mainly found in British Columbia and Ontario, which represent one-third of the assets of the program and consume 15 per cent of the annual maintenance budget.

The program has received an additional approximately $150 million in the last two years through the Special Recovery Capital Projects Program. Yet, more capital funds are demanded.

Revenue of approximately $3 million is generated from nominal docking charges and $2.4 million comes from British Columbia. Revenue policy is not applied universally across the country. No charges are levied at East Coast harbours.

The program is managed from Ottawa with construction being done by Public Works Canada. Project priorization is strongly influenced by pressure from local interest groups. Regional managers are simply advised that certain projects will be undertaken. The project development and delivery process has contributed significantly to the lack of accountability for program delivery.

ASSESSMENT

There is a need to rationalize harbours in order to significantly reduce the number of Class D and C harbours.

There is no clear legislative mandate for the recreational facet of the program. The Constitution Act gives the federal Parliament exclusive legislative authority over navigation and shipping and it can be argued that this

includes only commercial navigation. The Fisheries and Recreational Harbours Act, under which the program operates, states that the Minister may undertake projects for the acquisition, "... of any scheduled harbour or any fishing or recreational harbour".

The inconsistency of revenue policy application and the low fees have minimized revenue and discouraged private sector investment. Marina operators cannot compete with free services or charge as little as $0.96 per day for docking a boat up to 45 feet in length as DFO does.

OPTIONS

The study team recommends to the Task Force that the government consider:

- immediate divestiture of all recreational facilities, and the development of a plan for closing and/or amalgamating Class D harbours;

- review and universal application of Revenue policy should be reviewed and applied universally at rates which do not undercut private operators; and

- Public Works to increase contracting out of construction work on small craft harbours.

CANADIAN HYDROGRAPHIC SERVICE (CHS)
(Fisheries and Oceans)

OBJECTIVE

To contribute to the safe use of Canada's navigable waters through collection and publication of hydrographic information.

AUTHORITY

Constitution Act, Government Organization Act (1979) and Canada Shipping Act.

DESCRIPTION

The Canadian Hydrographic Service is part of the Ocean Science and Surveys (OSS) Program of the Department of Fisheries and Oceans (DFO). Highly decentralized, the CHS is best known by its regional operations -- the Bedford Institute of Oceanography at Dartmouth, the Champlain Centre for Marine Science at Quebec, the Bayfield Laboratory for Marine Science and Surveys at Burlington and the Institute of Ocean Sciences near Sidney, B.C. OSS (CHS) is the keeper of the research ships, which are used as well by DOE, EMR and university researchers. The CHS is responsible for charting Canada's (longest in the world) coastline and (second largest in the world) continental shelf.

CHS does for navigable waters what the Surveys and Mapping Branch (EMR) does for Canada's terrestrial territory. The Service has four main outputs. It publishes some 1,500 nautical charts which are used in resource development and exploitation, commercial shipping operations and by pleasure craft. In conjunction with Transport Canada, it issues, weekly, Notices to Mariners. By law, mariners must keep on board the latest charts, updated from the Notices. Sailing Directions and Small Craft Guides supplement the charts by providing detail on harbours, passages, wharves, etc. Tide and Current Tables are prepared for waters having significant tidal fluctuations. Finally, natural resource maps, the seaward extension of land maps, depict the ocean floor and the gravity and magnetic fields of the earth.

Some 80 per cent of the work pertains to requirements of the Canada Shipping Act, administered by Transport Canada. The CHS also provides advice to Fisheries, Environment, Energy, Mines and Resources and to National Defence.

BENEFICIARIES

All users of Canada's navigable waters.

EXPENDITURES (millions of dollars)*

	83-84	84-85	85-86	86-87	87-88
Salaries and Wages	21.1	22.2	21.1	22.0	22.2
Other O&M and Capital	16.5	17.9	17.1	16.8	17.1
Grants and Contributions**	--	--	--	--	--
Capital***	2.6	2.6	2.5	3.3	2.3
TOTAL	40.2	42.7	40.7	42.1	41.6
Revenue	1.3	1.3	1.7	1.7	1.8
Person Years	704	682	703	707	713

* Does not include approximately $7 million per year transferred from other programs, e.g. OERD, NOGAP, UP, SDF.

** Less than $100,000 per year.

*** Does not include approximately $8 million per year for ship acquisition.

OBSERVATIONS

Over the years, a recurring question about CHS has been, "where does it belong?" Formerly attached to EMR with Surveys and Mapping Branch, it was transferred to Environment with Oceanography in 1970. With the Government Organization Act (1979) it was moved to form part of the new Fisheries and Oceans Department. Because of its links with programs in many departments, there is no categorical answer to the question. Those interviewed agreed unanimously that the marriage with physical oceanography was a good one, but offered no further opinion. CHS headquarters is still co-located with the Surveys and Mapping Branch. There may

be some potential for consolidation with DPW which operates at least one hydrographic ship (on the Fraser) and conducts its own sweeping and sounding activities in conjunction with dredging. DPW requirements are less sophisticated than those of CHS.

Unlike Surveys and Mapping, which will complete basic medium scale mapping by the turn of the century, a hydrographer's work is apparently never done. Because of shifting ocean floors, silting, dredging, continuing encroachment into previously uncharted waters and changing traffic patterns, new charting will be required for a long time.

New technologies are, however, having an impact on the work. Launches used for taking soundings can travel twice as fast as they could 20 years ago. Remote control vehicles, operating one or more on each side of a parent ship, can measure three or more swaths in a single pass. New techniques permit under-the-ice measurements to be taken from on-top-of-the-ice vehicles and from remotely-controlled submersibles. Digital data base creation provides speed and flexibility in chart production.

The Minister of Fisheries and Oceans has undertaken an independent review of departmental programs, services provided, beneficiaries and main issues facing the Department.

ASSESSMENT

The CHS appears to be well managed and is in the process of developing standards for levels of service for Treasury Board consideration prior to the approval of a new five year ship acquisition and refit plan.

There are no apparent compelling reasons to move CHS to any other organizational location.

OPTIONS

The study team recommends to the Task Force that the government consider leaving the Service to continue on its present course, pending completion of the Minister's review and the levels of service study.

TOURISM
BAS ST-LAURENT
ILES-DE-LA-MADELEINE
(Regional Industrial Expansion)

OBJECTIVE

To provide a program for tourist development complementary to programs under DRIE aimed at improving the economic development prospects of the area and acknowledging the relative importance of the tourist industry in this remote location.

AUTHORITY

Cabinet approval in May 1983 of a federal plan aimed at improving the economic development prospects of the area.

DESCRIPTION

Seven areas of federal activity are addressed in the overall agreement -- agriculture, forestry, minerals, fishery, tourism, transportation and industrial development. Under tourism, assistance is available only when the type of project and the applicant are not eligible under IRDP and/or the financing under IRDP is not sufficient to lever the project. It may be used for renovation of tourist accommodation facilities, development of tourist attractions, including museums and cultural activities in the hands of commercial or non-commercial operators, and tourism marketing for package tours and special events.

BENEFICIARIES

Local tourist operators with commercial ventures and non-commercial operators, including non-profit, paramunicipal and other organizations active as developers of new attractions or in the organization of package tours. Funding comes entirely from the Federal Government and the sharing ratios according to tier groups are: maximum, 50 per cent for renovations, 90 percent for tourist attractions and 75 per cent for marketing.

EXPENDITURES

Cash flow projections prepared when the Bas St-Laurent program was taken over by DRIE in March 1984 show total expenditures of $14 million distributed as follows -- $3.8 million in 1984-85, $3.3 million in 1985-86 with the

remaining $7.0 million held in reserve for later use on the basis of need. To date, $1.6 million has been committed. There is a similar program for Iles-de-la-Madeleine in the amount of $0.1 million.

OBSERVATION

Bas St-Laurent is not the only seriously depressed region in Canada. Should this overall approach to the problem produce measurably positive results within the next year or two, consideration should be given to adopting a similar approach in other needy areas. The scope of the program is such that joint federal provincial co-operation should be able to accomplish more than unilateral action. Any further undertakings should be under an ERDA subsidiary agreement. Any meaningful review of the situation should examine total transfer payments into the region, including personal payments such as UIC and welfare, before and after introduction of the Bas St-Laurent program.

ASSESSMENT

The tourism participation represents a small portion of the overall $264.7 million Bas St-Laurent program. Major funding has been provided for the overall program and the objective is its effective use in addressing the specific economic concerns of the region. This must be kept prominently in mind or projects may be approved without the desired results being achieved.

While this review centres on tourism, the overall co-ordination of the agreement is the responsibility of DRIE. Regular meetings with participants from all sectors are held at Rimouski to review progress and report on development. Renewed interest in forestry management by private wood lot owners, aided by incentives to undertake better maintenance and reforestation under proper control, should have long term benefits. New initiatives in the fisheries and agricultural sectors are generating activity in the private sector. Transportation improvements of $35 million include wharf additions, oceans roads and airport installations.

The economic realties in the tourist industry with its short season have clearly guided the establishment of the priorities under this tourism agreement. Whether or not one supports the concept that funding should be provided under

government plans, the clear reality is that if tourism is to be promoted as essential to the economic welfare of the region, then the objective will not be accomplished if left to the private sector alone.

OPTIONS

The study team recommends to the Task Force that the government consider continuing the Bas St-Laurent agreement for another year pending a review of take-up and expenditures. In the event the Bas St-laurent program is not being utilized to any sizeable extent, it should be allowed to lapse.

CANADA-NANISIVIK MINES LTD AGREEMENT
(Indian Affairs and Northern Development)

OBJECTIVE

To assist in developing a viable economic mine site by providing infrastructure facilities. To create employment opportunities for Northern residents to improve their standard of living. To optimize the use of Canadian ships and the development of Arctic shipping technology.

AUTHORITY

Agreement between the Government of Canada and Nanisivik Mines Ltd., signed in 1984.

DESCRIPTION

A specific agreement to provide infrastructure facilities including a wharf, an airport, a townsite and roads.

BENEFICIARIES

The mine operators, Nanisivik Mines Ltd. and the employees, as well as the local residents who benefit from the new infrastructure facilities.

EXPENDITURES

The cost of the facilities was $24.4 million; and under the terms of the agreement, $6.9 million has been recovered from the Company. Cash flow has enabled management to invest in other development opportunities and a successful venture is under way in the Yukon. Since the Federal Government holds an 18 per cent equity interest, a consideration for providing facilities, the question arises as to continuing government ownership versus privatization. A formal study is under way in this regard.

OBSERVATIONS

Located on the northern tip of Baffin Island, one of the most northerly remote settlements in the North West Territories, the mine has been a success. With a mill capacity of 1,800 tons per day, 615,000 tons of zinc, lead and silver concentrate were milled in 1983. Reserves are estimated at 4 million tons.

Employment averaged 190 persons in 1983. The goal of employing 60 per cent natives after three years has never been met, although a total of 471 Inuit have held positions since 1975. At present 25 per cent of the work force are northern residents, which is high compared to other mines.

Production is being scheduled to exhaust the ore body in five to six years as there is a fixed closing date, to ensure that operations are not permitted to continue indefinitely.

ASSESSMENT

With orderly planning and close monitoring by a committee representing the federal government, the Northwest Territories and the Inuit Council of the Hamlet, which meets at least twice annually and at least once with company officials, the project has gone well.

The agreement stipulates that on closure, the Company is required to dispose of the materials, equipment and buildings, clean up and restore the site, and relocate its employees and their dependents.

The favourable experience gained with the M/V Arctic, a 28,000 ton specially constructed vessel with ice breaking capabilities, for the transport of ore, ensured the Polaris Mine operators of transport facilities for their even more remote mine on Little Cornwallis Island. The vessel is jointly owned by the Federal Government (51 per cent) and North Water Navigation Ltd. (49 per cent) and is operated by Canarctic Shipping.

OPTIONS

The study team recommends to the Task Force that the government consider examining the potential for recovering the funds injected through sale of the minority shareholdings.

LEGISLATIVE ANALYSIS AND RESEARCH PROGRAM
(Labour Canada)

OBJECTIVE

To provide information, analysis and evaluation of all labour laws in Canada.

AUTHORITY

Appropriation Act

DESCRIPTION

The main purpose of the program is to analyse labour legislation, primarily in Canada. There are three main categories within the program:

a. preparation and maintenance of a data base on labour law covering the federal jurisdiction, the provinces and the United States;
b. a fast response service on labour law in Canada, mainly addressed to the needs of the federal government, but also used by provincial governments, labour and industry; and
c. special analytical studies on priority topics on an ad hoc basis for the federal government.

The data base consists of all labour law in Canada from which 15 comparative reports are updated periodically and made available to the public. These reports set out the legislation of, and legislative changes made by, federal, provincial and territorial governments in such fields as industrial relations, employment standards, occupational health and safety and workers' compensation. Between 500 and 1,500 copies of each publication are distributed.

The fast response service responds to inquiries on specific labour legislation provisions. During fiscal 1984, the program handled about 500 information inquiries from the federal government and about 750 from provincial governments, employers, unions and individuals.

BENEFICIARIES

The principal users of the service are federal government departments, provincial governments, employers, labour organizations and researchers.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Salaries and Wages	0.2	0.2	0.2	0.2	0.2
TOTAL	0.2	0.2	0.2	0.2	0.2
Person Years	5	5	5	5	5

OBSERVATIONS

There are approximately 550 Acts and 750 Regulations in Canada pertaining to Labour Law, with 150 new Bills or Regulations each year. This program provides a centralized information source on the contents of the various pieces of legislation.

ASSESSMENT

The large bulk of the comparative analytical work performed by the members of this group (three lawyers and two support staff) is a necessary part of the functioning of Labour Canada. The Department, in order to carry out its mandate, has to be aware of all existing and prospective labour legislation in Canada and to have the capacity to analyse that legislation. The services provided to business and labour, as well as to the provincial governments, are by-products of this necessary service to the federal government. The publication of the various reports assists these other bodies to access available government information.

The resources devoted to the program are relatively spartan and can be expected to stay this way given competing demands within Labour Canada for the limited resources available to the department.

OPTIONS

The study team recommends to the Task Force that the government consider maintaining this program without change.

INDUSTRIAL RELATIONS INFORMATION SERVICE
(Labour Canada)

OBJECTIVE

To facilitate labour negotiations by providing for trade unions and employers a full range of public information used in collective bargainings, wage determination and industrial relations decision-making in Canada.

AUTHORITY

Cabinet approval in May of 1981.

DESCRIPTION

The IRIS reacts to individual requests for information on industrial relations and collective bargaining and prepares tailor made responses based on reviews of federal, provincial and private information sources.

The Industrial Relations Information Service makes its services known by special presentations at employer and union conferences and conventions.

It also publishes a compendium, Collective Bargaining Information Sources, outlining the contents of over 400 information sources.

BENEFICIARIES

The service is geared to meet the needs of:

labour and management negotiators;
union researchers, staff representatives and business agents;
employer compensation analysts and industrial relations managers; and
union and management consultants and other parties involved in industrial relations (conciliators, arbitrators, journalists, other federal and provincial government departments).

During fiscal year 1984, IRIS responded to over 1,750 individual requests.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Salaries & wages	0.3	0.3	0.3	0.3	0.3
O & M*	0.1	0.2	0.1	0.1	0.1
TOTAL	0.4	0.5	0.4	0.4	0.4
Person Years	8	8	8	8	8

* Capital included in O & M

ASSESSMENT

The Industrial Relations Information Service appears to be meeting the needs of industry and unions by responding promptly with reliable and up-to-date information which can be used in collective bargaining and other industrial relations fields. During the year the service made considerable effort to get out and talk to client organizations and develop a liaison with individual trade unions and employers and also to publicize the existence of IRIS. The IRIS was recently subject to a preliminary internal program evaluation and the service was found to be correctly targetted with respect to its key clientele.

These are obvious benefits if the parties engaged in collective bargaining are well informed -- this applies to both labour and management. There does not appear to be any equivalent service offered by the private sector or the provinces. It was brought to the attention of the study team that a private sector organization, based in Ottawa, has been contemplating setting up a computer-based information system on industrial relations. This service, however, would be business oriented and not necessarily available to unions, particularly small unions, because of the fees involved. In any event, the service is not at present available.

OPTIONS

The study team recommends to the Task Force that the government consider maintaining this program while investigating the possibilities for imposing some (nominal) charge for the service.

LABOUR CANADA LIBRARY
(Labour Canada)

OBJECTIVE

To supply library material and information services on industrial relations matters, in support of the operational programs of Labour Canada, other government departments, unions, universities, private research organizations, industry and the general public in Canada and other countries.

AUTHORITY

Department of Labour Act and Appropriation Act.

DESCRIPTION

The Labour Canada Library was established in 1900 and is identified by the National Library as a unique national resource for library material in industrial relations.

The library is international in scope and is kept up to date as much as possible while also serving as an important resource for historical research. Holdings include:

150,000 books and government documents;
a comprehensive collection of labour union proceedings, labour related periodicals, and current labour union newspapers;
a historically important microfilm collection of Canadian labour union newspapers dating from the early years of the labour movement; and
publications of the International Labour Office.

The major subjects covered by the collection are collective bargaining, the rights of workers to organize and bargain collectively, labour management relations, women in the work force, and labour economics, equal pay, technological changes and labour, despute settlements, equality of job opportunity, quality of workinglife, wages and salaries, employee and employer rights, labour law, occupational safety and health, industrial productivity, labour education and labour history.

LABORLINE is a computerised public data base of the Labour Canada Library which catalogues resources added to the library since September 1981. The LABORLINE service is

available for direct online searching by users, both inside and outside Canada, through Comshare Limited. Funds have been approved to convert the manual cataloguing records 1961-1981.

BENEFICIARIES

Labour Canada and others in Canada and elsewhere involved in industrial relations. These include other federal and provincial government departments and crown corporations; labour unions; business and industry; researchers; and the general public.

Users of LABORLINE include the New York State School of Industrial and Labour Relations at Cornell University, University of Toronto, Alberta Department of Labour, Ontario Ministry of Treasury and Economics, Air Canada and Canada Post.

EXPENDITURES (millions of current dollars)

	83-84	**84-85**	**85-86**	**86-87**	**87-88**
Salaries and wages	0.5	0.4	0.5	0.5	0.5
O & M*	0.2	0.3	0.3	0.3	0.3
TOTAL	0.7	0.7	0.8	0.8	0.8
Person Years	16	16	16	16	16

* Capital included in O & M

OBSERVATIONS

An internal audit of the Labour Canada Library in 1983 made a number of recommendations aimed at improving the effectiveness of the library, many of which have been accepted subject to resource availability and are being implemented.

One major recommendation commented on there being no formal mandate for the library. As a result, a formal mandate was issued in February 1984 and this is reflected in the objective set out at the beginning of this section.

The internal audit also noted that LABORLINE is incompatible with the computer system used by the National Library. Many libraries are, in effect, cut off from electronic assess to LABORLINE because of this lack of compatability. Labour Canada is investigating this problem.

ASSESSMENT

The library appears to be a valuable collection of material relating to industrial relations, which should be maintained. Given the importance of the collection one option might be to move it to the National Library. This, however, would likely result in dispersal of the collection throughout the National Library as well as making it less accessible to its main client group, Labour Canada. The National Library itself has made these points in not accommodating a request from Labour Canada to accept the pre-1970 material held in the Labour Library.

OPTIONS

The study team recommends to the Task Force that the government consider maintaining the program without change.

FEDERAL MEDIATION AND CONCILIATION SERVICE (Labour Canada)

OBJECTIVE

To assist management and labour in the federal private sector in preventing and resolving collective bargaining disputes and to help the parties to resolve their differences during the term of the collective agreement instead of at the critical bargaining stage and to develop sound industrial relations.

AUTHORITY

Canada Labour Code Part V.

BENEFICIARIES

Unions and employers subject to federal jurisdiction.

DESCRIPTION

The Canada Labour Code lays down a series of procedures which parties to an industrial relations dispute in the federal jurisdiction must follow before a legal strike or lock-out situation can take place. The Federal Mediation and Conciliation Service is responsible for administering these dispute resolution provisions.

The federal jurisdiction covered by the FMCS involves industrial relations in those areas specifically enumerated in the Canadian Constitution as being the responsibility of the federal government or those areas which, for the general advantage of the nation, have subsequently been declared federal responsibility. The jurisdiction includes such undertakings as railways, highway transport, telephone systems, pipelines, radio and television, air transport, banks, grain elevators, nuclear facilities and federal Crown corporations.

The Federal Mediation and Conciliation Service is composed of three units: the Mediation and Conciliation Branch, Arbitration Services Branch, and the Program Planning and Technical Support Branch.

The Mediation and Conciliation Branch in the fiscal year ended March 31, 1984, dealt with 297 collective bargaining disputes of which 239 were resolved, and 58 disputes were pending at year end.

The branch dealt with 36 requests for Ministerial consent to complain to the Canada Labour Relations Board in respect of bargaining-related alleged unfair labour practices.

The Arbitration Services Branch investigates requests received by the Minister for the appointment of arbitrators and the establishment of arbitration boards to arbitrate grievance disputes during the term of collective agreements. The Minister received 115 requests and appointments were made in 78 cases. The remainder were either withdrawn or settled with the assistance of arbitration services. The Branch appointed adjudicators in 140 cases of alleged unjust dismissal, up from 78 in fiscal 1983 (an increase of 80 per cent). The arbitration services also publishes the Federal Arbitration Award Digest and Arbitration Services Reports.

The Program Planning and Technical Support Branch is the research arm of the Federal Mediation and Conciliation Service. The branch provides operationally-oriented research and technical assistance to conciliation officers and mediators, to conciliation commissioners, industrial inquiry commissions, arbitrators or other third party experts involved in the resolution of collective bargaining disputes in industries under the jurisdiction of the code.

EXPENDITURES (millions of current dollars)

	83-84	**84-85**	**85-86**	**86-87**	**87-88**
Salaries and Wages	2.8	2.9	3.1	3.1	3.1
O&M*	0.6	0.9	0.9	0.9	0.9
TOTAL	3.4	3.8	4.0	4.0	4.0
Person Years	65	69	69	69	69

* Capital included in O & M

OBSERVATIONS

The Federal Mediation and Conciliation Branch's intervention in collective bargaining disputes has contributed to averting a number of potential strikes. The branch resolved 90.4 per cent of all disputes handled without any stoppage of work in the year 1983-84.

A comprehensive audit of Labour Canada conducted by the Auditor General in 1983 failed to identify any management deficiencies in the Federal Mediation and Conciliation Service, and stated that the values reported by FMCS effectiveness measures were within a reasonable range for a service of this kind.

ASSESSMENT

Collective bargaining is a fundamental feature of relations between labour and management in the Canadian economy as each seeks to maximize its share of the benefits derived from a particular economic activity. The ultimate weapon available to each side is a strike or a lock-out, both of which are disruptive to the smooth running of the economy and potentially deleterious to the national well-being. The objective of the FMCS is to help resolve disputes in the federal industrial relations jurisdiction to prevent use of these last resort weapons.

In carrying out its mandate the FMCS seeks to minimize federal intervention in the disputes and put maximum pressure on the parties to find solutions themselves. However, mediators and conciliators are required in many disputes and the FMCS appears to be performing this function well.

At present the Federal Public Service Sector does not come within the purview of the FMCS, but is under the auspices of the Public Service Staff Relations Board. It could be argued that the government as employer should be subject to the same rules as other employers and that the FMCS should be responsible for mediation of disputes in the public sector. This is likely to be attractive to the unions although it would probably not result in significant (if any) economies. If this course were followed, it would probably be necessary to set up the FMCS as an idependent agency so as to distance the Minister of Labour from public sector disputes. On balance, the study team does not suggest this course of action be adopted at this time.

OPTIONS

The study team recommends to the Task Force that the government consider maintaining this program without change.

COLLECTIVE BARGAINING DIVISION
(Labour Canada)

OBJECTIVE

To provide statistical and analytical measures on industrial labour relations structures and processes for unions, private industry, economic and social decision making and program evaluation.

AUTHORITY

Department of Labour Act and the Canada Labour Code.

DESCRIPTION

The Collective Bargaining Division monitors major contract negotiations -- those covering 500 or more employees including the contruction industry. The division responds to requests from the public for published and unpublished data on collective bargaining. Material supplied includes copies of collective agreements, samples of terminology used in specific agreement clauses and special output from the computerized data base for both wage and non-wage provisions.

The information originates from statistical surveys, information obtained from unions, employers and provincial labour departments. The division analyses the collective bargaining processes from the time negotiations start until they are concluded. It also analyses the wage and non-wage trends gained in negotiations for groups of 500 or more employees (approximately 1,400 agreements), the number and impact of strikes and lock-outs.

The Canada Labour Code requires that a copy of all collective agreements in the federal jurisdiction be filed with the minister. The division maintains a library of current and historical collective agreements for provincial jurisdiction, a total of 8,000 collective agreements. The agreements are updated and maintained for the use of industrial relations practitioners through the Industrial Relations Information Service.

The Division's publications constitute the major information base in Canada covering collective bargaining

and related labour matters. The following is a list of publications:

a.	Calendar of Expiring Agreements	Annually
b.	Collective Bargaining Review	Monthly
c.	Major Wage Settlements	Quarterly
d.	Provisions in Collective Agreements in Canada	Annually
e.	Work Stoppages	Monthly
f.	Strikes and Lock-outs in Canada	Annually
g.	Directory of Labour Organizations in Canada	Annually

In addition, the Division produces two internal monthly reports for briefing ministers on current developments in collective bargaining:

- Major Wage Settlements; and
- Special Report on Key Developments.

BENEFICIARIES

Bank of Canada, Department of Finance, Treasury Board, and other federal departments as well as other levels of government, industrial relations practitioners, unions, private industry researchers and the general public.

EXPENDITURES (millions of current dollars)

	83/84	84/85	85/86	86/87	87/88
Salaries & Wages	1.1	1.2	1.1	1.1	1.1
O&M*	0.2	0.3	0.2	0.2	0.2
TOTAL	1.3	1.5	1.3	1.3	1.3
Person-Years	34	32	29	29	29

OBSERVATIONS

The Collective Bargaining Division recognizes that improvements should be made to some of its publications and is in the process of consolidating the following minor publications: Calendar of Expiring Agreements and Work Stoppages with the monthly Collective Bargaining Review; and the Major Wage Settlements (monthly) with the Special Report on Key Developments.

With labour issues continuing to be of importance to government decision makers, the division has expanded its program in a number of areas.

a. In 1983, the construction industry was added to the monitoring system and a special analytical report (Key Developments) was instituted on a monthly basis to brief selected federal ministers on current collective bargaining developments.
b. The need for more accurate reporting of wage increases prompted the division to take into account the impact of Cost of Living Allowance (COLA) clauses on wage structures and to provide information on wage increases with and without COLA.

The two other areas have been identified for further change in 1985. Labour Canada is consulting with the Department of Finance and Treasury Board on statistical options for the provision of data on the unit cost of labour.

In addition, the Branch's principal publication, Collective Bargaining Review has been revised and consolidated with several minor publications. This will be the only national publication available to the public providing an integrated analysis on all aspects of industrial relations in Canada.

ASSESSMENT

Labour Canada has a statutory requirement under the Canada Labour Code to keep records of collective agreements in the federal jurisdiction. It is consequently ideally situated to maintain a comprehensive library of major collective agreements for all Canada. The provinces cooperate in this by making available copies of major collective agreements in their respective jurisdictions. The collation and publication of key provisions negotiated in these agreements enables governments and others to monitor wage trends and other issues affecting labour relations.

The output of the Collective Bargaining Division has a wide audience. The quarterly wage data publication covering major collective bargaining settlements is regarded as a key

economic indicator and receives national attention. Users of the output consider it to be of value.

OPTIONS

The study team recommends to the Task Force that the government consider maintaining this program without change.

SURVEYS DIVISION OF THE DEPARTMENT OF LABOUR
(Labour Canada)

OBJECTIVE

To provide statistical and analytical information on labour characteristics for unions and private industry to assist them in economic and social decision-making and evaluation.

AUTHORITY

Department of Labour Act.

DESCRIPTION

The Surveys Division carries out an annual survey (in October) of occupational wage rates, standard hours of work and certain other working conditions. This survey is the only national source of wage rates statistics by occupation, industry and geography which are used for business, plant location and manpower studies at the regional and sectoral levels.

The Department of Labour was established in 1901 and from the outset, its establishing Act has given it a mandate to collect and disseminate data on labour characteristics. The Wages and Working Conditions Survey (WWCS) became annual in 1921 and has since grown in technical sophistication and coverage. It is a voluntary survey conducted by means of a mailed survey of employers in establishments with 20 or more employees in all sectors except construction and several primary industries.

The survey provides statistical and analytical information on labour characteristics concerning average wage rates, salaries and hours of work for up to 700 non-professional occupations in most major industrial areas classified by 90 community groups, size of establishment measured by number of employees, union and non-union categories and sex.

In addition, the survey collects information on working conditions related to hours of work, paid holidays and vacations and, on occasion, gathers information on pension plans, employment of handicapped workers, education leave and maternity leave.

The Surveys Division sends out about 30,000 questionnaires each year to business and receives about 16,000 returns, a 53 per cent return which is considered reasonable for a voluntary survey.

Statistics on wages and standard hours of work are published for 22 large communities and all of Canada. Unpublished statistics for other communities are available on request.

The Department has co-operative arrangements with the provinces of Alberta and Saskatchewan for those provinces to administer the survey in the two provinces as part of wider provincial surveys. The resulting information is integrated into the national statistics. Labour Canada pays, under contract, a share of the cost of conducting these surveys. Other provinces have been invited to participate in similar joint ventures (1973) but have not taken up the offer.

BENEFICIARIES

Unions, private industry, other federal agencies, provincial and municipal governments.

The number of requests or enquiries received directly by the Surveys Division for information from WWCS totals about 1,000 per year. Of the 1,000 requests received, 47 per cent are from business users and half of these are from smaller companies. The vast majority of the inquiries originate from the business community as opposed to the trade unions. Union users of the WWCS represent about five per cent of the total. The Industrial Relations Information Service within the department also uses the survey results. The sale of the Wage Rates, Salaries and Hours of Labour publication by the Department of Supply and Services (DSS) number 7,328 as of December 4, 1984 for the 1983 issue and 1,109 for the Working Conditions publication.

Other users included:

Provincial governments, economists and policy advisors use the data to answer public enquiries about appropriate levels of pay by occupation and community and for policy development.
Municipal and regional administrations mainly for comparison between locations to assist prospective investors.

The federal government in several of its departments outside of Labour Canada. Treasury Board is a major user of the data in relating public service pay scales to those in the private sector. Employment and Immigration Canada in its regional offices for adjudication of unemployment insurance claims.

Lawyers in workmens compensation, unemployment insurance and accident insurance claims.

EXPENDITURES (millions of current dollars)

	83-84	**84-85**	**85-86**	**86-87**	**87-88**
Salaries and Wages	0.7	0.8	0.7	0.7	0.7
O & M	0.2	0.3	0.3	0.3	0.3
TOTAL	0.9	1.1	1.0	1.0	1.0
Person Years	20	20	20	20	20

Note: Capital included in O & M.

OBSERVATIONS

An external evaluation of the WWCS was conducted in September 1984 by Abt Associates of Canada. The evaluation (based on a telephone survey of 402 WWCS respondents and users) found many firms in Canada do not consult employee compensation data of any kind on a regular basis. Of the 35,000 firms surveyed by Labour Canada, it is estimated that about 15,000 use the data. Larger firms involved in collective bargaining are more interested. Union researchers are interested in data to assist in determining wage rates comparisons on a provincial basis. However, probably because the survey collects information on the lower paid non-union sector as well as the unionized work-force, trade unions are not heavy users except as rebuttal to employers. Both management and labour are more interested in wages and salaries data than they are about working conditions and benefits. Those who use the service claim to be satisfied although the delay in publishing up to one year for the complete results is seen as a major defect. Some firms do not use WWCS because they consider the information too general, too late, or of poor quality.

The response rate of WWCS is around 53 per cent and has fallen by about 5 percentage points since 1978. The Abt evaluation suggested some improvements in the response rate could be expected from improved questionnaire design and by identifying a specific individual in a firm to receive the questionnaire. Attitudes toward participating in the survey are generally positive although 15 per cent of those who responded in 1983 said that completing the survey was a lot of work or a nuisance.

The evaluation concluded that there is a limited need for the WWCS and that it does possess some unique characteristics. When compared to other sources of employee compensation data it received a good ranking on everything but the currency of the data. Abt recommended that the clientele for the survey is sufficient to warrant its retention.

ASSESSMENT

There is no doubt that the WWCS provides useful information. Whether this information is essential is more difficult to answer. There are other sources of compensation data although they do not provide the detailed occupational and geographical breakdown of the WWCS. Some users, provincial governments and the Pay Research Bureau have indicated they would extend their own surveys if the WWCS was discontinued, so the burden on respondents would not necessarily be reduced, while the comparability of the resulting data could not be guaranteed.

The chief collector of statistical information for the federal government is Statistics Canada. The question arises as to whether the WWCS would not be better housed in that agency; and whether an existing Statistics Canada collection vehicle such as the Survey of Employment, Payrolls and Hours (SEPH) could be used. Discussions on this option are currently taking place between Labour Canada and Statistics Canada. If Statistics Canada were to conduct the survey, there should be an opportunity to make a comparative assessment, perhaps in the determination of Statistics Canada's resource allocations, of the usefulness of the WWCS vis-à-vis the other statistical collections.

Labour Canada has set in place an action plan aimed at improving the collection and delivery of the survey information. In the short term this will include an expanded follow-up system to improve response rates and, perhaps more importantly, advancing the schedules for both the preliminary (to end-January) and final (end-June) releases.

OPTIONS

The study team recommends to the Task Force that pending the outcome of the current feasibility study, the government consider transferring the operational responsibility for the WWCS to Statistics Canada using, if at all possible, an existing Statistics Canada collection vehicle to conduct the survey so as to reduce the burden on respondents. Under this option Labour Canada could contract Statistics Canada to carry out the work and would be fully involved with Statistics Canada in the survey design. Resource savings would depend on the degree to which the statistical requirements of the WWCS could be accommodated from an existing survey vehicle.

DREDGING AND FLEET SERVICES
(Public Works Canada)

OBJECTIVE

To provide dredging services on a "contracted out" basis, providing for maximum use of private sector dredging capacity wherever it is more effective and less expensive or using Public Works Canada Dredging Fleet.

AUTHORITY

Appropriation Act.

DESCRIPTION

The Federal Government undertakes dredging activity in all regions of Canada. Program responsibility for dredging rests with the various Marine Directorates and Corporations of Tranport Canada, with the Department of Fisheries and Oceans and with the Parks Branch of Environment Canada. The implementing agency is Public Works which undertakes the work by contract with the private sector or by use of its own Dredging Fleet.

The Department provides dredging services with the in-house fleet and personnel only where required, to avoid monopoly situations, to minimize mobilization costs, to provide rapid response, and to deliver services to the client in the most efficient and effective manner. Specifically, the project must have one or more of the following characteristics:

a. requires a special type of dredge
b. is in an area inaccessible to private sector equipment
c. is continuous and requires unique machinery
d. is small
e. is remote and/or dangerous
f. is urgent
g. has unique material to be dredged or geophysical conditions
h. has broad range of material to be dredged.

BENEFICIARIES

Dredging companies, federal government departments (TC, DFO) federal government agencies (Ports Canada, St. Lawrence Seaway Authority), port and channel users, cargo owners, and shippers.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Salaries	9.7	10.6	11.3	11.3	11.3
Other O & M	6.5	5.3	6.2	6.2	6.2
Capital	1.4	-	5.5	10.1	12.5
Grants & Contributions	-	0.1	-	-	-
TOTAL	17.6	16.0	23.0	27.6	30.0
Revenues	7.0	7.3	17.5	17.5	17.5
Person Years	277	277	277	277	277

The cost of Canadian government maintenance dredging in 1983-84 was $41.1 million allocated among Public Works ($17 million), Transport Canada ($19 million), and Fisheries and Oceans ($6 million). Percentage distribution of expenditures, by region, was:

Atlantic	33	West	18
Quebec	14	Pacific	35

Total revenue in 1983-84 was $7.0 million. User fees cover all of the $1.8 million dredging costs at major ports and the St. Lawrence Seaway, as well as a portion of the $6.8 million dredging costs incurred at commission harbours, public harbours and Heritage Canals. There is no revenue generated from dredging in commercial waterways or small craft harbours.

OBSERVATIONS

Ports Canada has 15 harbour authorities and its dredging of harbour facilities which excludes main channels, has normally been contracted to the private sector without PWC involvement. The Harbours and Ports Directorate of Transport Canada presently funds most public dredging at the nine Great Lakes and Pacific Commission Harbours with dredges provided by PWC. The Directorate also manages dredging at the 50 public harbours using PWC technical services, some PWC dredges and some private sector dredges. Dredging of 1400 small craft harbours is carried out with $6 million of DFO program funds for contracted dredging services and $10 million in PWC dredging fleet services.

The Canadian Coast Guard uses PWC dredging services for its 15 main channels and 30 port entrances. The St. Lawrence Seaway Authority contracts out all its dredging requirements and Parks Canada contracts with PWC for its infrequent dredging needs.

In the late 1970's PWC managed 85 per cent of the federal government dredging and PWC equipment was used for 60 per cent of the work. By 1982-83 PWC was managing 60 per cent of total government dredging activity, 70 per cent of which was done with PWC equipment.

The demand for dredging services is growing with the introduction of deeper-draft ships requiring greater depths. Additional costs of $16 million annually are identified for small craft harbours and $6 million annually for commercial waterways.

PWC, as the implementing agency, maintains that a basic fleet capacity is required and that funds for fleet upgrading are needed.

ASSESSMENT

With PWC functioning solely as an implementation agent for dredging, and several departments and agencies having dredging needs, there is a requirement to define exactly who has responsibility for what. An interdepartmental committee was formed to deal with this and other related problems and their report "Government of Canada Dredging" will be released shortly.

Dredging services will always be in demand, particularly when the user does not pay. As noted above, dredging costs will increase significantly if all demands are met. In order to induce some discipline on demand, a user pay concept could be developed. Administratively, the user fees for dredging should be integrated with a broad base of other charges for shipping services to avoid a shift of commercial shipping to US harbours.

The level of service -- how deep should channels be and should they be this deep all of the time -- defines dredging requirements. While these have been defined and costed within TC, DFO has not yet introduced a harbour classification system and associated level of service concept.

The Auditor General has been critical of PWC dredging in the areas of criteria for use, cost accounting, and cost sharing for the dredging fleet.

According to existing government policy, Canadian dredging can only be done with Canadian registered, built or modified dredges. At present, dredges account for a very small portion of the Canadian shipbuilding industry and hence, this non-tariff barrier is of little significance to the domestic shipbuilding and repair industry. Removal of this restriction might stimulate competition in the Canadian dredging industry. It is not anticipated that an identical barrier that prohibits Canadian dredges from working in the US will be lifted for some time.

OPTIONS

The study team recommends to the Task Force that the government consider immediate implementation the following recommendations from the "Government of Canada Dredging Policy" report.

a.	Jurisdiction	1.	Agencies with territorially defined mandate have full authority for dredging e.g. Parks Canada
		2.	Agencies with functionally defined mandates have full authority for dredging e.g. TC Harbours and Ports Directorate for harbour facilities; Canadian Coast Guard for main channels; DFO for small craft harbours
b.	User Fees	1.	Adopt user fee principles for waterway users
		2.	Fees should be integrated with all other marine services changes
c.	Level of Service	1.	DFO should complete categorization of harbours
		2.	The level of service associated with each category of DFO Harbours should be approved by Treasury Board.

d. Accelerated private sector involvement	1.	PWC establish early target dates whereby one-half to two-thirds of PWC managed dredging volume be let to the private sector
	2.	PWC dredging fleet be limited to those required to meet exceptional dredging requirements

No capital acquisition should take place for PWC dredges until the impact of the recommendations can be evaluated.

The impact of removal of the non-tariff barrier protecting Canadian dredging should be studied. If there is any indication that this would stimulate competition in the dredging business, PWC should immediately begin to reduce of their fleet, starting with the vessels in the Gulf of St. Lawrence.

The potential savings from implementation of the above alternative are the proposed capital acquisition program to replace or refurbish the existing $100 million fleet as well as additional revenue of some $20 million from user fees.

DRY DOCKS
(Public Works Canada)

OBJECTIVE

To acquire, construct, reconstruct, operate and maintain certain dry docks and to make contributions under the Dry Dock Subsidies Act. To ensure that competitive and accessible ship repair facilities are available.

AUTHORITY

The Dry Dock Subsidy Act; Appropriation Act.

DESCRIPTION

This program currently maintains and operates Crown owned dry docks at Lauzon Quebec, Selkirk Manitoba, and Esquimalt British Columbia. There is one principal user for each of the facilities at Lauzon (Davie Shipping), Selkirk (Purvis), and Esquimalt (Burrard - Yarrows), with a fee for service being authorized by Order-in-Council.

BENEFICIARIES

Shipbuilders, shipping companies, ship repair contractors.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
O & M	4.8	4.5	5.6	4.2	4.2
Capital	2.1	7.4	3.9	.1	.1
Grants & Contributions	.2	.2	.2	.2	.2
TOTAL	7.1	12.1	9.7	4.5	4.5
Revenue	1.0	1.0	1.0	1.0	1.0

OBSERVATIONS

As a result of government policy in the late 1960s and early 1970s, the federal government got into the dry dock business using various program instruments. Public Works became the custodian for these facilities.

By the late 1970s the Canadian shipbuilding industry was in decline, and Canadian dry docks became marginally competitive. Public Works has since made attempts, most strongly in Lauzon, to divest themselves of the dry docks. They have not increased the fee structure since 1971, in order to further subsidize the beneficiaries, and this was cited by the Auditor General as inappropriate.

Two large additional dry docks have been built in Canada with significant government assistance. The Burrards dock on the west coast recently won a U.S. Navy contract and so it has found some niche in the market where it is competitive. The Halifax Industries dry dock is in receivership but ownership could revert to the province.

The Dry Dock Subsidies Act has been used only once to construct a dry dock in Montreal owned and operated, with an on-going subsidy, by Versatile-Vickers.

The dry dock industry is not likely to be internationally competitive again. Since it services mobile assets, increased costs of operation cannot be passed on to the user. The Canadian problem is acute and the PWC owned facilities will never generate sufficient revenues to be self sufficient.

ASSESSMENT

Privatization of the dry docks in Selkirk and Esquimalt could be pursued. It is anticipated that Burrard - Yarrows or another current part time user of the facility would purchase Esquimalt and Purris would likely buy the Selkirk dry dock. The sale of the Lauzon facility was attempted once, but was not successful.

Further assistance to dry docks under the Subsidies Act is not justified. The payment is very small and its removal would have little adverse impact.

Revenue from the docks could certainly be increased, given the fact that the fees structure has not changed since 1971. However, these facilities cannot hope to reach a break even point under federal government ownership.

While the PWC dry docks are all used, there are also privately owned dry docks in each area that are under-utilized.

OPTIONS

The study team recommends to the Task Force that the government consider repealing the Dry Dock Subsidies Act. This would generate a small savings in government expenditures and would have no impact on the dry dock operated by Versatile-Vickers.

The study team is of the view that negotiations should commence on the sale of the Selkirk and Esquimalt facilities. In order to ensure that these are concluded in an expeditious manner a fee structure which will yield a break-even point should be put in place immediately. Also, the potential buyer should be advised that the federal government will close the the dry dock if the sale is not consummated.

With respect to the Lauzon facility negotiations should be opened immediately with Davie Shipping so that the federal government may divest itself of this facility as soon as possible.

REVENUE CANADA - CUSTOMS AND EXCISE
- Various Services -

OBJECTIVE

The departmental objective is stated as "to achieve compliance with all legislative provisions for which Customs and Excise has administrative responsibility".

AUTHORITY

The Department of National Revenue Act, the Customs Act, the Customs Tariff, the Excise Act and Excise Tax Act.

DESCRIPTION

The functions of Customs and Excise are to administer the various pieces of legislation and to collect revenue - $17.5 billion net in 1984-85, of which approximately 70 per cent is collected under the Excise function.

The Customs function involves the control of the international movement of people and goods across Canadian boundaries and collection of customs and related revenues. The Excise function involves the licencing of manufacturers and wholesalers, the collection of sales and excise taxes on domestic and imported goods, the licensing and regulation of breweries and distilleries and the collection of excise duties on spirits and tobacco.

The department operates 12 regional Customs offices in addition to its Ottawa headquarters and provides customs service to the public in over 650 locations across Canada. Over 7,500 person-years are involved in the Customs function.

On the Excise side of the operation there are 9 regional and 29 district offices.

BENEFICIARIES

Manufacturers, wholesalers, importers and the Canadian public in general, although many would not regard a revenue collecting agency as providing them with benefits.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Salaries and Wages	328.3	342.3	355.6	351.1	350.0
O & M	43.1	49.2	47.6	45.6	45.5
Capital	7.0	7.7	14.4	11.6	11.5
TOTAL	378.4	399.2	417.6	408.3	407.0
Net Revenue Collected (paid to consolidated revenue)	15,849.9	17,484.0	17,677.0	19,210.0	20,088.0
Person Years	10,294	10,256	10,148	10,004	9,968

OBSERVATIONS

Comments made by representative business people about Customs and Excise include:

- government rules and regulations are becoming more and more complex and increasingly difficult for the small businessperson to understand and keep up to date with - the operations of Customs and Excise should be greatly streamlined to assist business;

- the department sees itself primarily as a revenue collecting agency rather than providing service to Canadian business - it often seems to lose sight of the fact that importers are also Canadian businesspeople;

- there is a need for greater consistency in interpretation - on the customs side, for example, it often pays to shop around the different ports of entry to find an officer who understands the products being imported;

- the end-use designations in some tax and tariff definitions also cause problems, particularly for importers who often have no clear idea of the likely nature of the end-user - also there is often considerable delay in refunds of duty paid;

- the number one problem with sales tax for small business appears to be the requirement that the tax be paid by the end of the month following that in which the sale took place - this, in effect, means the businessperson has an average of 45 days in which to pay whereas his own receivables average in excess of 60 days;

- the second most troubling concern with sales tax is the bad debt situation where a vendor has forwarded tax on a credit sale to a customer from whom he is unable to collect;

- other problems relate to the situation of marginal manufacturers and arbitrary valuations for which there is no basis in the legislation.

Suggestions for improving services include:

- better communications between head office and regional and district offices so that a more consistent interpretation of the various tax and tariff items is applied;

- an arms-length appeal process along the lines of that in place for Revenue Canada Taxation;

- better service-oriented training of officers both in the detail of customs and excise legislation and interpretation and in dealing with people;

- providing access to sector specialists at regional offices.

ASSESSMENT

Senior management of the department appears to be aware of many of the problems raised by business people and is seeking to address them. For example, in an effort to make interpretation more consistent it is computerizing the excise interpretations and putting these on line to regional offices and making the on-line information available outside government. In this way it hopes to get information to those who need it more quickly, with more consistency and fewer mistakes. A similar service is being examined for customs.

With regard to arm's length appeals, the 1983 budget Ways and Means motion included a proposal to establish such a process but the legislation was never passed. The process is operating informally but the department hopes that it will again be proposed in the budget. (This is a policy matter and, as such, the responsibility of the Department of Finance). The department is also testing a pilot credit card program which could help the payment situation of small business.

It seems, however, that a large part of the problem lies with antiquated legislation leading to arbitrary rules to make the legislation workable. For example, the legislation prohibits importation of goods between sunset and sunrise and empowers the department to impound a horse and cart, while making no reference to a truck. A Bill for a new Customs Act, which should reduce some of the red tape, is in preparation (it has been introduced in previous Parliaments but not passed); and there also is a need to modernize the Excise legislation. Also there is a history of minor amendments, designed to improve some aspects of the administration of the department, lapsing on the notice paper. Examples include the 1983 proposal to set up an appeals process and a 1984 proposal to alleviate the bad debts situation.

The Customs and Excise function is essential to government both in the revenue it collects and in controlling cross border movements of goods. There appears to be considerable room for improving the services offered to Canadian business both by reducing the demands on individual business and by streamlining the operations of the department itself. Given the size and diversity of the organization and the time and resources available to the study team it has not been possible to come up with specific proposals. The study team spoke to only a few business people. What is needed is a wide-ranging examination of the legislation under which the department operates and of the services offered by the department as well as a commitment by the government to making the necessary legislative changes. Such an examination of Revenue Canada, Taxation was carried out in 1983 by a Progressive Conservative Task Force.

OPTIONS

The study team recommends to the Task Force that the government consider introducing the new Customs Act without delay. In addition, the government might wish to set in place an examination of the operations of Revenue Canada, Customs and Excise, with a view to improving the services offered to Canadians and reducing the administrative burden imposed on Canadian business.

REVENUE CANADA TAXATION
- Various Services -

OBJECTIVE

To administer and enforce the Income Tax Act, various Federal and Provincial statutes related thereto, including parts of the Canada Pension Plan and the Unemployment Insurance Act, 1971, and various provincial tax credit plans.

AUTHORITY

Department of National Revenue Act, the Income Tax Act and other statutes.

DESCRIPTION

The Department administers income tax legislation for the federal government and collects personal income tax on behalf of all provinces except Quebec, and corporate income tax on behalf of all provinces except Alberta, Ontario and Quebec. It also collects employee and employer contributions under the Canada Pension Plan and employee and employer premiums of unemployment insurance.

National Revenue, Taxation provides advice on the administrative feasibility of proposed tax measures and provides a statistical basis for the development of tax policy to the Department of Finance who has responsibility for tax policy and amendments to the Income Tax Act.

The Department also administers the Petroleum and Gas Revenue Tax Act as well as the Acts passed to give effect to treaties signed with a large number of countries for the purposes of eliminating double taxation and of providing for the exchange of information to assist the treaty partners in imposing the appropriate taxes on foreign source income.

In carrying out its mandate, the Department has a significant interface with the public, both businesses and individuals, and provides a range of services aimed at assisting the public in its dealings with the department.

BENEFICIARIES

All taxpayers subject to the Income Tax Act, the Canada Pension Plan Act, the Unemployment Insurance Act and Petroleum and Gas Revenue Tax Act.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Salaries & Wages	544.2	602.9	647.4	649.9	657.8
O&M	104.8	125.1	133.1	132.8	136.1
Capital	16.4	18.3	14.1	13.4	12.2
Less: Receipts and Revenues Credited to the Vote	61.7	75.8	81.7	87.6	93.0
TOTAL	603.7	670.5	712.9	708.5	713.1
Person Years	18,184	19,338	19,863	20,007	20,269

OBSERVATIONS

The Progressive Conservative Task Force on Revenue Canada, 1984 stated: "In recent months, evidence has mounted to demonstrate that Canada's tax collection system, once one of the most fair and effective in the world, is undergoing a crisis". Revenue Canada's own surveys showed a drop of public confidence in the fairness of the department.

Notice of Objections filed by taxpayers jumped by 36 per cent in 1983. Over 70 per cent of all Notices filed are settled in whole or in part in favour of the taxpayer.

In September, 1983, the Canadian Chamber of Commerce warned: "There is a clear perception across the country that Revenue Canada is becoming more and more aggressive in its attitude towards the assessing and collection of income taxes".

In November 1983, every chartered accountancy firm in the city of Cambridge signed a letter alleging that local auditors were operating under a quota system. The then Minister of Revenue conceded that quotas existed in various parts of his department although they were never official policy.

Poor communication seems to be one of the major reasons why a growing number of citizens and businesses regard Revenue Canada as an insensitive collection agency. Geoffrey Hale, Vice President, Canadian Organization of Small Business, stated in Ottawa, March 29, 1984:

Many private sector observers have been left with the impression that communications with Revenue Canada flow in one direction only. The Department appears to have been reluctant to establish regular consultative processes with the private sector in order to review and improve difficulties which have arisen in the course of tax administration.

Following its hearing, the PC Task Force produced some 76 recommendations to reform tax administration in Canada and to make it more accessible and fair for Canadian taxpayers. Since the change in government, a number of changes in policy and procedure have been announced by the new Minister which reflect the recommendations of the Task Force.

ASSESSMENT

Under the direction of the present Minister, Revenue Canada Taxation is addressing the concerns raised by Canadian taxpayers as described in the Progressive Conservative Task Force on Revenue Canada.

The Government tabled in the House of Commons on January 10,1985, a Ways and Means motion to recognize taxpayer rights and significantly alter the department's procedure in the collection of disputed taxes. The three basic elements of the proposed legislation are: First, provisions to guarantee taxpayers a fair hearing before they have to pay disputed taxes; second, provisions for refunding of disputed taxes that have already been paid; third, safeguards to prevent abuses of these new provisions. These measures are in response to concerns raised by taxpayers. This legislation guarantees tax collection policy will treat Canadian taxpayers as "innocent until proven guilty".

The Department no longer initiates publicity when tax-related charges are laid. Convictions are publicized when rendered, but the names of persons convicted in trial are not repeated publicly when quarterly summaries of convictions are released.

Full statements of accounts for corporations every time the account changes, including details of all relevant transactions, are now being supplied. Previously corporations were only advised of amounts owing or receivable.

A non-statutory declaration of taxpayer rights was made public on February 28, 1985. Its wide dissemination to taxpayers and departmental employees and its public visibility within district offices should help ensure that taxpayers and employees are aware of and sensitive to the new tax administration values being implemented by the Minister.

Steps are being taken to broaden the representational base and terms of reference of the Minister's Taxation Advisory Committee. Its members will deal with both tax policy and tax administration issues. The Minister will participate in its deliberations.

"Quotas" have been removed where they existed contrary to departmental policy. New employee performance measurement criteria and procedures have been introduced, and some 6,000 employees have received training in their application.

The foregoing examples illustrate some of the many improvements made pursuant to implementing the PC Task Force recommendations. Other significant action has already been taken in connection with the recommendations related to the provision of additional points of service, improved toll-free telephone service, clearer reasons for reassessment, better service to the handicapped, easing of the tax instalment burden, more sensitive collection efforts, and more opportunities for taxpayers to respond before assessments are issued. A recent survey carried out by the Chamber of Commerce indicates positive results have already been achieved through these and other measures that have been taken. Action is continuing to implement the Task Force's recommendations.

The department's other improvements include the application of sophisticated computer technology in storing and retrieving data from taxpayers returns. Staff in the district offices will be able, this tax season, to make many requested adjustments to which taxpayers are entitled, on the spot at computer terminals in the district offices.

The representatives of small businesses who met with the team were pleased with the numerous internal policy changes the Minister and the Department have made.

OPTIONS

The study team recommends to the Task Force that the government continue current program initiatives of Revenue Canada, in particular those aimed at providing better training to departmental staff so that they can deal knowledgeably and courteously with Canadian taxpayers.

STATISTICS CANADA
- Various Services -

OBJECTIVE

Statistics Canada has formulated its objectives as:

a. to provide statistical information and analysis on the social and economic life of Canada in order to contribute to an understanding of the various aspects of Canada and provide a basis for the development, analysis and evaluation of social and economic policies and programs, for public, business and individual decision-making, and for the general benefit and information of Canadians; and

b. to promote a national statistical program through the coordination of statistical activities of federal departments and agencies with the provinces and territories.

AUTHORITY

The Statistics Act.

DESCRIPTION

Statistics Canada provides a broad range of economic and social statistics. On the economic side it presents statistics on manufacturing, agriculture, export and imports, retail sales, services, prices, productivity changes, transportation and labour markets. Information from many of these individual collections is integrated to form aggregate measures such as those included in the System of National Accounts. Social conditions are reported upon by statistics that cover demography, health, education, justice, culture and household incomes and expenditures.

In carrying out its functions, Statistics Canada makes use of data bases compiled as by-products of other government operations, e.g., taxation records, as well as conducting its own censuses and surveys.

Statistics Canada makes its information available through media releases, publications, electronic dissemination and also in response to direct inquiries. CANSIM is the Statistics Canada medium for providing data electronically to users. In addition, specialized products

and services are provided on a cost-recovery basis, including advice on the design and implementation of information gathering projects for federal departments and agencies.

Statistics Canada carries on research and development into statistical techniques and concepts and methods of data collection, processing and dissemination. Selected analytical studies which give focus to the implications of statistical data are carried out in the public interest.

The agency has nine regional offices and, where cost-effective, collection, production and information operations are conducted in the regions with the output being integrated at head office. Details of the regional offices are set out below.

Statistics Canada - Regional Organization

Location	**1984-85 Person Year Allocation**
St-John's, Nfld.	26
Halifax, N.S.	48
Montréal, Qué.	56
Sturgeon Falls, Ont.	27
Toronto, Ont.	60
Winnipeg, Man.	46
Regina, Sask.	3
Edmonton, Alta.	47
Vancouver, B.C.	46
Total	359

BENEFICIARIES

The three levels of government, business, labour, researchers and international organizations use the Statistics Canada output. A number of federal statutes require the agency to provide data for particular purposes, e.g. Federal Provincial Fiscal Arrangements and Established Programs Financing Act, Corporations and Labour Unions Returns Act (COLURA) and approximately 30 per cent of the total resources are required for these purposes. In addition to the legislated requirements, the statistical information provided to government is used primarily for economic and social policy and programs development and evaluation.

Approximately 45 per cent of the enquiries recorded by Statistics Canada come from the business community.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Salaries and wages	152.2	158.4	174.3	190.8	169.4
Other O & M	43.7	53.5	58.9	117.2	50.1
Grants	0.4	0.2	0.1	0.1	0.1
Capital	5.0	1.3	0.9	0.9	0.9
TOTAL	201.3	213.4	234.2	309.0	220.5
Revenue	11.7	8.2	10.6	10.6	10.6
Net cost	189.6	205.2	223.6	298.4	209.9
Person Years	4,628	4,600	4,772	5,656	4,593

NOTE: The 1985-86 figures differ from those shown in the published Part III documents as they reflect the decision to re-install the 1986 Census. The figures for 1985-86 to 1987-88 represent the "Benchmark reference levels" currently being negotiated with Treasury Board. They represent the resouces that would have been necessary to conduct the Census as previously planned and do not reflect the requirement to reduce expenditure by $70 million and person years by 250 over the period to 1989-90.

OBSERVATIONS

In 1983 the Auditor General carried out a comprehensive audit of Statistics Canada. The audit focused on five key areas:

credibility;
meeting user needs;
co-operation of respondents;
confidentiality;
management control.

In the first four areas, which generally relate to the product of Statistics Canada, the audit concluded that users were generally satisfied with the reliability of the product; that the output is certainly relevant; that continuing attempts were made to reduce the response burden; and that the agency is taking satisfactory measures to protect confidentiality. The audit report, nevertheless, did identify a number of concerns in these areas and noted improvements which could be made to the quality and

marketing of the product. These included making users more aware of the limitations of various statistics; an improved quality assurance program; resolution of discrepancies between major surveys underlying the national accounts; and better mechanisms for identifying user needs and balancing competing demands for information.

With regard to management, the Auditor General identified "substantial opportunities to strengthen management control and reduce costs".

The Chief Statistician has written to the Auditor General reporting on developments in Statistics Canada in response to the audit and inviting the Auditor General to review these developments. In general, the agency has responded positively to the audit recommendations although there are some which it views as not practicable to implement. Chief among the latter is the Auditor General's suggestion that Statistics Canada should continue to explore the formation of a National Statistics Council to help in setting priorities. Instead a network of advisory committees is being established with membership composed of professionals in the field. The committees so far established cover the National Accounts, Labour Market Statistics, Science and Technology, Culture, Prices, Demography and Justice.

Statistics Canada is not the only federal agency collecting and tabulating statistical information. Many other departments and agencies collect information as part of their day-to-day implementation of government programs and make this information available. Often this information serves as the foundation for Statistics Canada product, e.g. customs clearances are used in the tabulation of trade statistics and consequently the Balance of Payments. In a number of cases, however, departments conduct special data collection which, on the face of it, could be carried out by Statistics Canada (e.g. Labour Canada's survey of wages and working conditions). Under the Common Services policy Statistics Canada is a Common Services Organization and is likely to be consulted on proposals for new collections, but not on already existing collections.

Statistics Canada has concluded agreements with a number of departments to prevent duplication of effort and to improve the quality of data collection. For example, the Canadian Centre for Justice Statistics, the focal point for

providing national justice statistics and information, is guided by a committee of federal and provincial deputy ministers, responsible for the administration of justice, and the Chief Statistician. Arrangements are also in place to co-ordinate air transport statistics.

In provinces, provincial departments and agencies are generally responsible for collecting the statistics deemed necessary, with Quebec and Ontario being the only two provinces with fully fledged statistical offices. Under the Statistics Act, Statistics Canada can share information with provinces which have an Act providing for the confidentiality of the information. Most (but not all) provinces have such an Act, and agreements are in place in a number of statistical areas to collect and share information so as to minimize duplication. However, in areas of shared or provincial responsibility (e.g. health, education) duplication often occurs.

In deciding to proceed with the 1986 Census, the government instructed Statistics Canada to reduce the cost of the Census and to find $70 million (over five years) in internal savings. A number of measures are under consideration to achieve these savings, although firm decisions have yet to be made. The measures being contemplated include:

a. Census related

discard some questions;
reduce pre-advertising;
reduce free access to the census publications by making greater application of the user pays principle, e.g. basic information could be freely available but special tabulations would be paid for, or not produced;
given provincial interest in the census, seek provincial assistance in providing space and staff;
continue to use separate English and French questionnaires rather than one bilingual form.

b. Other

increase price of publications and apply market test for certain information;
seek to obtain more than the incremental costs of special tabulations;

improve efficiency by increased integration of operations and pooling of clerical resources rather than staffing individual divisions to meet peak demands;
move more operations into the regions, where cost effective, to improve response rate, reduce complaints and follow-up queries;
make greater use of taxation data, particularly for small business, to reduce response burden;
charge federal departments for special collections.

ASSESSMENT

Statistical information, such as that provided by Statistics Canada, is essential for the government of a developed industrial country and the management of its economic and social activities. The increasing complexity of society and its focus on information have resulted in almost unlimited demands for more and improved statistics. Statistics Canada (and ultimately the government and Parliament through the resources allocated) has to balance these demands against the response burdens placed on business and individuals, within limited resources.

As noted, the government has instructed Statistics Canada to find $70 million to pay for the 1986 Census. The measures being contemplated, some of which are outlined above, appear to be a reasonable response, although there may be costs in terms of information (e.g. less detail on the characteristics of small business due to the use of tax records). After examination of the possibilities, the agency will be making proposals to the Minister. The process appears to be well under way.

We have discussed the matter of coordination of federal statistical activities. There is likely to be benefit in a more in-depth study of information gathering and statistical surveys within the federal government. Such a study could identify areas where data could be collected more efficiently by using Statistics Canada, perhaps by piggy-backing on existing survey vehicles; or where arrangements between Statistics Canada and other departments (or provinces), such as exists for justice statistics, would reduce duplication and response burden.

From the small business perspective Statistics Canada is seen as a nuisance drawing away scarce resources of people and time for unproductive activity. Business is more likely to respond to information requests if it can see the benefits from filling in the forms, particularly if the businessperson perceives that there is a benefit to himself. Consequently, Statistics Canada should make efforts to bring to the attention of respondents the reasons for, and benefits from, particular information gathering activities.

The proposals regarding a National Statistics Council made by the Moser report of 1980 and endorsed by the Auditor-General in 1983, should be implemented. The Statistics Canada alternative of a network of expert committees appears narrowly focussed on professional statisticians and expert users of statistics. There needs to be a more broadly based input into the priority setting of the agency, including those on whom the response burden largely falls, such as small business. This could help business understand the rationale for various collections and also keep to the forefront of Statistics Canada's consciousness the costs to respondents of its activities.

OPTIONS

The study team is of the view that the processes instigated by Cabinet requiring Statistics Canada to generate internal savings of $70 million, be allowed to take their course. In addition, the study team recommends to the Task Force that the government consider establishing a National Statistics Council representing a variety of interests and users, including representatives of respondents to assist in setting priorities for Statistics Canada; as well as establishing a follow-on study team to examine statistical activities in the federal government and make recommendations for further rationalization and integration.

CANADIAN GENERAL STANDARDS BOARD
(Supply and Services Canada)

OBJECTIVE

To provide standards development and maintenance and, where necessary, qualification and certification listing of products and services, in support of federal government programs for procurement, health and safety, consumer protection, international trade, energy conservation and regulatory reform.

AUTHORITY

The Department of Supply and Services Act, the National Research Council Act and various orders-in-council transferring responsibilities between Ministers.

DESCRIPTION

The Canadian General Standards Board (CGSB), currently located within the Department of Supply and Services, has evolved from the Canadian Government Purchasing Standards Committee established in 1934 within the National Research Council. Its original activities were the development of standards for government purchasing for products such as paint, soap, petroleum and textiles. At first, standards were developed internally by committee staff but it gradually moved to an open consensus operation in which interested parties - users, producers, technical experts - participated. Also the standards writing activity broadened outside the direct procurement area as the CGSB undertook standards writing for other government activities and to support industrial and consumer needs e.g., garment sizes. The Standards Council of Canada was established by Parliament in 1970 to coordinate the development of voluntary standardization in Canada and the National Standards System was established. The CGSB is accredited by the Standards Council as one of five Standards Writing Organizations (SWO) for national standards. A standard has to meet a number of criteria (e.g., be bilingual) before being accepted as a national standard.

Requests for the development of new standards or the amendment of existing standards are received from government departments, industry and consumer organizations, the Standards Council of Canada, individuals and other organizations. The requests fall into seven major categories:

Health and Safety e.g., insulation jackets for hot water tanks;

International Trade e.g., trade documents, humane animal traps;

Procurement e.g., paints, furniture, petroleum;

Energy Conservation e.g., thermal insulation products;

Terminology e.g., glossary of material management terms;

Consumer Needs e.g., textiles, life jackets, garment sizes;

General Purposes e.g., driver training.

The demand for the development of standards by CGSB comes largely from the private sector, although in many cases, these demands are the indirect result of government policies (e.g., the large demand for metric standards in 1976-77).

CGSB standards are consensus standards, that is, they are developed by a balanced committee of the major interested parties such as producers, consumers, other users, third parties and government. The views of each party are aired and, if possible, reconciled and reflected in the standard. This work is carried out by more than 300 committees.

All CGSB standards are published in both languages and about 75 per cent are metric.

CGSB also operates qualification and certification listing programs which identify suppliers who have demonstrated their capability to produce products or supply services to a recognized standard.

CGSB operates largely on a break even basis.

Beneficiaries

The beneficiaries include other government programs, producers, suppliers and consumers.

EXPENDITURES (millions of current dollars)

	83-84	**84-85**	**85-86**	**86-87**	**87-88**
Salaries	1.5	1.7	0.7	0.7	0.7
Other O&M	0.7	0.8	0.3	0.3	0.3
Capital	-	-	-	-	-
TOTAL	2.2	2.5	1.0	1.0	1.0
Revenues	2.7	2.7	1.2	1.2	1.2
Net Cost	(0.5)	(0.2)	(0.2)	(0.2)	(0.2)
Person Years	43	42	18	18	18

Note: In 1982-83, an additional 24 person years were provided to the program on a two year trial basis in association with the qualification and certification listing activity. The need for these person years was to be the subject of evaluation after two years but this evaluation has not taken place.

OBSERVATIONS

CGSB is one of five Standards Writing Organizations (SWO) accredited by the Standards Council of Canada. The others are the Canadian Standards Association (CSA), Canadian Gas Association (CGA), UnderwritersLaboratories of Canada (ULC) and the Bureau de normalisation du Québec (BNQ). CGA and ULC are specialists concentrating on gas appliances, accessories and fire, accident and crime prevention respectively, while BNQ is concerned primarily with the regional requirements of Quebec. Thus the two general SWO's are the CSA and CGSB. A comparison of the output of the SWOs is set out below.

	Total Standards	**Bilingual**	**National**
CGSB	1637	1637	200
CSA	1132	308	133
ULC	161	21	24
CGA	136	49	55

One view of standards is that they can be a means by which firms, individually or as a group, can build barriers to entry, limit imports, reduce competition and retard product and process innovation. On the other hand, the increasing complexity of many products and processes means that full information for evaluation is difficult for the consumer to obtain and a standard is one means of providing such information. Also standards can help to correct market failure that arises when the market price of a product does not reflect the true social cost -- this is most often the case with health and safety standards.

The broader question of voluntary standards as a partial or complete substitute for regulation will presumably be examined by the Study Team on Regulatory Reform, as will the overall National Standards System. The question at issue here is simply the operations of the CGSB.

By and large there is little duplication between the activities of the various SWOs as they tend to concentrate on different product areas. e.g., CSA writes electrical standards, an area in which CGSB is not active.

Given the existence of private sector SWOs, is there a need for the government to maintain the CGSB? Departments could contract out to private SWOs their needs for standards, both for procurement and regulatory purposes. However, in fact there is only one general SWO apart from the CGSB, namely the CSA, and such an approach would in effect give CSA a monopoly. Also, the market for standards is itself imperfect since once a standard is produced, it can be used by all. The incentive to produce standards is thereby weakened since the developer cannot appropriate all the benefits. A further factor is the difference in market power and information of producers relative to consumers, and the potential for producers to dominate a privately funded organization such as CSA.

Consequently, there is probably a role for the government to play in the development of standards to ensure that the consumer and small business gets a fair deal. Some anecdotal evidence for this can be obtained from a couple of case histories:

> in the case of the standard for driver education, a need was identified and the Standards Council brought it to the attention of all five SWOs -- only the CGSB expressed interest, possibly because there was no great return.

work offered by the CGSB to CSA was not accepted.

There is, however, a potential problem in the CGSB writing standards for products and services to be used by the public at large, namely the potential liability for the government if the standard proves to be inadequate. In such circumstances, there could possibly be large financial claims made on the government. The need for some legal disclaimer on CGSB standards should be further examined.

Also, there is a possibility for a conflict of interest to arise in CGSB writing standards for government procurement while being a component part of the Department of Supply and Servicves, the government's procurement agency. If the role of CGSB as a writer of standards for the general public is confirmed, then consideration could be given to placing the operation within Consumer and Corporate Affairs.

OPTIONS

The study teams notes that CGSB is also being examined within the context of the overall voluntary standards system by the Regulatory study team. Pending the outcome of that study, the study team recommends maintaining the present operations of the CGSB. The team is of the view that the CGSB, in consultation with the Department of Justice, be asked to examine the legal implications of standards written for products or services to be used by the public at large.

CANARCTIC SHIPPING COMPANY LIMITED
(Transport Canada)

OBJECTIVES

To demonstrate Canadian leadership in commercial arctic marine activity while providing financial returns in keeping with the company's long-term operational plan.

To develop the technology in Arctic navigation and operation which the commercial activity will require for year-round operation.

To extend the period of arctic activity by adopting new technologies and operating practices developed through the company's research initiatives.

AUTHORITY

Cabinet 1975

DESCRIPTION

In 1973, Cabinet directed that Canada develop an internationally recognized excellence in navigation under arctic conditions. Proposals relating to this policy decision were to be presented for Cabinet approval. The operation of icebreaking commercial vessels was considered to be one of the crucial first steps in the implementation of such a policy.

In 1975, Cabinet authorized the Minister of Transport to negotiate an agreement with Federal Commerce and Navigation Company Limited of Montreal to result in the construction, in a Canadian shipyard, of one 28,000 ton deadweight Canadian Arctic class 2 icebreaking bulk carrier to be managed by a joint-operating company. This type of vessel would be able to operate under arctic conditions for 2 to 3 months a year. Cabinet also requested that the negotiated agreement permit the Government to review its total involvement after 5 years with the option of terminating the joint venture, with a biennial review option thereafter.

The vessel was constructed by Port Weller Dry Docks, of St. Catharines, Ontario, at a cost of $40 million. Canarctic Shipping Company Limited took possession of the M/V Arctic in June, 1978.

This joint government/industry venture was formalized through several agreements and contractual arrangements.

1. The Memorandum of Shareholders Agreement provides for a joint operating company (Canarctic) with share capital of $600,000; 51 per cent of the shares are held for and on behalf of Her Majesty and 49 per cent by North Water Navigation Limited owned equally by Upper Lake Shipping Limited, FEDNAV, and Canada Steamship Line. The company headquarters is located in Ottawa and employs 10 people. The vessel was financed through a lease-back arrangement for a period of 15 years with Royal Trust. Furthermore, the Crown undertook to assume complete responsibility for the operating deficit of Canarctic that was estimated at below $5 million annually.

2. The Time Charter Agreement details the terms and conditions of a daily hire rate between Canarctic and North Water Navigation for a period of 15 years between the months of December to June when the vessel is not employed in the Arctic.

3. The Bareboat Charter is the instrument whereby the financial backer, Royal Trust, leases the vessel to the operating company, Canarctic, for a period of 15 years to June 1993. The cost of the vessel is amortized at 9½ per cent interest over that period. The annual lease payment of $4.2 million is made semi-annually in two equal payments. At the end of the 15 year term Canarctic has an option to purchase the vessel at the lesser of the fair market value or $3.6 million.

4. The Nanisivik Contract of Affreightment was awarded to Canarctic in 1978 for a period of 5 years to carry the mine's production from northern Baffin Island to Antwerp, Belgium. This contract was renegotiated in 1983 for the period up to 1989.

5. The Cominco Contract was concluded with FedNav and Canarctic to move the Polaris mine production from Little Cornwallis Island, N.W.T., to Europe for a period of 8 years from 1982 to 1989 inclusive. In this agreement, the M/V Arctic plays the role of a back-up vessel by virtue of its superior ice class.

BENEFICIARIES

The resource industries, the scientific community and, in a way, the Canadian population in general because of the scientific and economic spin-offs of such an undertaking.

EXPENDITURES (millions of current dollars)

	84-85	85-86	86-87	87-88	88-89
Total expenses	8.7	10.3	14.5	16.8	17.1
Total revenues	5.4	6.8	10.8	13.6	14.2
Deficit*	3.3	3.5	3.7	3.2	2.9

* These deficits are assumed by Transport Canada out of its Vote-25.

OBSERVATIONS

The world wide energy situation has not resulted in the accelerated resource production envisaged six or seven years ago from frontier areas such as the Canadian Arctic. As a result there has been little motivation for the major oil and mining companies to develop the future transportation system which will eventually be required to move natural resources out of the Arctic.

This situation appears to be changing and along with PanArctic a number of the major players in the North are beginning to focus on the need to develop a demonstrated capability to operate successfully in ice-covered waters. Being the operator of the only commercial class 2 vessel available world-wide, Canarctic has been actively pursuing the market for such research work over the past year.

The U.S.-based Exxon Company is considering an extensive ice research program phased over several years to demonstrate a proven transportation capability in the ice-covered waters of the Bering Sea. It is known that Exxon has also approached Scandinavian ship-owners to ascertain the availability of a Baltic class vessel and the response was very enthusiastic. However, this class of vessel may be suitable for the lighter ice conditions but it would not match the M/V Arctic for the following years when Exxon hopes to test during the heavier winter ice in March and April.

Given these new opportunities for research contracts, the renewed interest on the part of PanArctic for oil exploration and shipment of crude from its Bent Horn project and the need to extend the operating season, both for trading and research purposes, it was decided recently to convert and upgrade the M/V Arctic to an ore/bulk oil (OBO) class 4 carrier, a much stronger design than the original one. This program will be completed during the winter months over a period of two years at a cost of $25 million of which $19 million is to be financed by Royal Trust for the remaining term of the original lease-back agreement and a $6 million contribution from Treasury Board.

ASSESSMENT

An economic analysis performed last year established that the cost to the Crown of opting out of the Joint Venture in June, 1985 will be $35.4 million, which includes the termination value of $32.5 million detailed in the agreement with the Royal Trust. This can be compared to the cost to the Crown of remaining in the Joint Venture of $24.1 million, which represents the expected annual operating deficit summed over the remaining period of the Shareholders Agreement to 1993. When discounted at 10 per cent, the present value of the expected deficit amounts to $15.2 million. Even if the Crown were to sell the vessel after opting out, its limited market value estimated at $10 million because of its high degree of specialization and the current slump in the industry, would not be enough to make up the difference. Therefore, its was concluded that remaining in the Joint Venture Agreement was the lesser-cost option to the Government.

The decision to convert and upgrade the M/V Arctic at a total cost of $25 million does not influence the above decision. In fact, the investment will help Canarctic increase its revenues through an extended trading season that will allow seven trips instead of the current five, the crude oil shipping contract with PanArctic and finally greater research opportunities with the vessel's added capacity as a class 4 instead of the original class 2 design. This investment is expected, however, to produce a slightly higher deficit of $25.8 million over the remaining life of the Agreement or $17.1 million when discounted at 10 per cent.

Government and industry participation was motivated by a desire for Canada to achieve leadership in research and commercial navigation in its own Arctic waters. The high element of risk foreseen in such a venture was acknowledged in the original Cabinet approval in 1975 when the government accepted to underwrite the major portion of the financial risk which had been forecast to reach $5 million annually. At the end of the first five years, total government contributions towards the deficit amounted to $19.8 million or 20 per cent under the original forecast.

Upgrading the vessel to a class 4 OBO will allow Canarctic to undertake a new phase in Arctic navigation. In fact, it is expected that the operating period will be extended to nine months, six of which would be in extensive ice cover which means that between commercial and research activities, the vessel could be kept occupied for the better part of the year. Furthermore, this will also provide an opportunity to tackle a major obstacle, namely operation in ice under conditions of 24 hour darkness. If successful, this would obviously open up new opportunities for resource development both for mining and oil industries.

OPTIONS

Given that the financial analysis done in 1984 showed that it was more economical to carry on with this venture than opting out and that further research was required to demonstrate the feasibility of extending the trading season under more severe conditions, the study team recommends to the Task Force that the government consider continuing this program. This will further contribute towards the achievement of Canadian sovereignty in the Arctic, the development of Arctic shipping policies for northern resources, security and environmental protection. This should be accomplished, however, by promoting the upgraded vessel capacity in the Arctic trade rather than the non-profitable southern trade where it cannot compete in terms of today's market conditions.

However, the team is also of the view that the present authorization should sunset in 1988 when Canarctic should be asked to justify the need to carry on with this project for the remaining five years of the Agreement.

CN MARINE INC.
(Transport Canada)

OBJECTIVE

To provide Atlantic coastal freight and ferry services for which Canada is responsible, particularly those under Terms of Union and Confederation.

AUTHORITY

a. Legislative - Department of Transport Act
b. Policy - Water Transportation Assistance Policy (approved by Cabinet in 1976).

DESCRIPTION

Shipping and coastal ferry services must fall into one of the following five categories in order to be eligible for subsidy assistance under the Water Transportation Assistance Policy:

a. Constitutional service;
b. Alternative to constitutional service;
c. Newfoundland coastal service;
d. Services providing a special developmental opportunity; and
e. Services relieving the effects of remoteness or isolation.

Although a number of ferry service operators receive subsidy assistance under this program, CN Marine receives approximately 80 per cent of the annual subsidy disbursements. These subsidies principally underwrite deficits incurred by CN Marine in operating its Atlantic ferry services. Subsidy payments are disbursed from Transport Canada's Surface Transportation Program and are effected through contract payments, grants, contributions and equity purchases.

At the request of Transport Canada (TC), CN Marine provides car, truck, railcar, freight and passenger ferry/coastal shipping services for the following routes:

a. North Sydney, N.S. to Port aux Basques, Nfld.;
b. North Sydney, N.S. to Argentia, Nfld.;
c. Cape Tormentine, N.B. to Borden, P.E.I.;
d. Newfoundland and Labrador Coastal Services;
e. Digby, N.S. to Saint John, N.B.; and
f. Yarmouth, N.S. to Bar Harbor, Maine.

BENEFICIARIES

Travellers and shippers of goods to and from certain areas in the Atlantic provinces and, in general, the residents of these provinces.

EXPENDITURES

As shown in Appendix A, route subsidies range from approximately 50-90 per cent. Payment of subsidies to CN Marine is determined by annually negotiated contracts. All contract payments are net of operating revenues.

Actual and forecast federal subsidy and capital expenditures for CN Marine services are as follows*: (millions of current dollars)

	82-83	83-84	84-85	85-86	86-87	87-88
Operating	152.9	158.9	164.7	132.9	112.2	135.1
Capital	47.4	69.1	13.2	--	--	
TOTAL	200.3	228.0	177.9	132.9	112.2	135.1

*These figures reflect current Treasury Board estimates. Transport Canada disagrees with the forecast rate of decline and the TB assumptions underlying these forecasts. Capital requirements do not appear to be sufficiently provided for.

OBSERVATIONS

The 1978 and 1982 Auditor General's Reports, the comprehensive audit of CN Marine by Touche Ross completed for TC in February 1984, and the TC Water Transportion Assistance Program Evaluation Study completed in May 1984 identify longstanding issues concerning the potential for rationalization of services provided, and the economy and efficiency with which these services are provided.

ASSESSMENT

Rationalization:

The routes and levels of service provided by CN Marine are reviewed annually by TC as specified in the Water Transportation Assistance Policy. The audits and study mentioned above, as well as recent route requirements analyses conducted by TC, indicate that the following

routes/services are potential candidates for rationalization which could lead to significant reductions in annual subsidy payments to CN.

a. P.E.I. Rail Ferry Service: TC studies, indicate this service is not cost-effective and the need for the service is questionable. The annual subsidy for this service is approximately $3.3 million.

b. Bay of Fundy Routes/Services:

1. Fundy routes/services principally support tourism which is not expressly provided for in the Water Transportation Assistance Policy. However, tourism is interpreted as a "developmental opportunity". Price increases and seasonally adjusted service levels present opportunities for subsidy reductions.

2. Digby, N.S. to Saint John, N.B. - The highway provides an alternative to this ferry service which requires approximately $9.8 million in annual subsidies. Fare increases should be considered here.

3. Yarmouth, N.S. to Bar Harbor, Maine - Although this service is profitable in the summer as an attraction for U.S. tourists, it does not seem to be necessary during the rest of the year. Accordingly, TC has recently decided to restrict it to six summer months only, resulting in a saving of $3.2 million annually beginning in 1985. This change will mean that Nova Scotia shipments to the Boston Fresh Fish Market will have to be re-routed via Digby - Saint John, which will add a 300 mile drive.

4. Fundy routes, seasonal timing, fee structures and service levels, as well as on-board and terminal services can be further adjusted to lower federal subsidy levels.

c. Newfoundland - Labrador Coastal Passenger Service:

A May 1984 TC report identified potential recurring annual subsidy savings of approximately $3.3 million through amalgamation of two routes and reduction from

three vessels to two. One of these vessels would have to be purchased at a minimum capital cost of $10-$15 million, or be "chartered-in" to properly satisfy route requirements. "Chartering-in" of an appropriate new vessel as well as "new-build" costs were analyzed and factored into the cost-savings calculations. More efficient use of existing vessels appears achievable through route integration.

d. Newfoundland-Labrador Coastal and Gulf Freight Services

The Coastal and Gulf freight services represent one of the largest cost components of the current subsidies to CN Marine. The potential for direct water transport, utilizing water/water trans-shipments rather than the current mixture of Gulf and Coastal freight services involving rail/water trans-shipments, should be examined to determine the potential for economical rationalization of the Coastal and Gulf freight services.

e. North Sydney, N.S. to Port aux Basques, Nfld.

Rail ferry service on this route provides linkage between mainland and Newfoundland rail systems. The rail ferry link is heavily subsidized ($21.1 million in 1984). Direct water transport to St. John's or Argentia would provide a cost-effective alternative according to TC studies and private operators. Tranport Canada is considering termination of the rail service by December 31, 1985.

Economy and Efficiency

A number of areas require improvement if appropriate levels of service are to be provided economically and efficiently.

a. Profit Margins

In recent years, CN Marine received a 7 per cent profit margin built into its negotiated subsidy 'contracts'. CN, as parent company, annually received a 45 per cent dividend from CN Marine. By Order-In-Council in late 1984, CN Marine Inc. became a 'parent' Crown Corporation. This

O.I.C. will facilitate TC's efforts to disallow the 7 per cent profit margin for 1985. This profit margin elimination would reduce subsidy payments to CN Marine by $21.5 million in 1985-86. Contract negotiations are in progress.

b. Capital Budgeting/Expenditure

The 45 per cent annual dividend flow from CN Marine to its former parent CN, did little to facilitate working capital requirements within CN Marine for financing capital acquisitions. Moreover, under the Tripartite Agreement between TC, CN Marine and CN, a $165 million capital acquisition fund was available for 'drawdown' over a five-year period ending 1984. TC would purchase shares in CN, who in turn purchased shares in CN Marine to effectively transfer 'drawdowns' for capital acquisitions from the fund to CN Marine. Initially, this arrangement was adopted to build the equity and hence capital asset base of CN Marine.

Acquisition of Canadian-built ferries, according to TC studies, requires premiums over foreign-built vessels of 100 per cent to 150 per cent. A case in point is the Abegweit, which after over $62 million in construction cost to the Crown is not extensively utilized due to uneconomical operating costs. Review of capital acquisition, planning, financing and contracting practices vis-a-vis CN Marine should be undertaken by TC. Overbuilt vessels such as the Bluenose II and Abegweit are expensive to operate. Inaccurate traffic demand forecasts and failure to consider potential route rationalization in the Gulf Service may result in similar problems for the new Caribou which will enter service in November 1985. The Caribou is estimated to cost $130 million or more. Use of CN Marine vessel procurements to subsidize the Canadian shipbuilding industry should be examined and challenged.

c. Pricing Practices

Review of relative passenger fee structures for the various routes and services offered by CN Marine indicates that comprehensive review and adjustment of these rate structures is required. Similarly, a rational fee structure for car,

transport trucks and rail car services is required. A pricing strategy which reflects equitable and consistent fees for services provided could contribute significantly to subsidy reductions. TC officials intend to implement adjusted fee structures in 1985 which will offset total subsidies by approximately $1 million. However, much greater subsidy reductions could be achieved.

d. Accounting Practices

CN Marine identified a $3 million loss on the 'catering activity' associated with the Borden, P.E.I. - Tormentine, N.B. ferry service. (Reference 1984 Evaluation Study.) Such accounting data is suspect when viewed in terms of the total cost of this ferry service of $36 million. Cost accounting and information systems for purposes of efficient operational management must be reliable. Several audit reports continue to point to deficiencies here.

e. Contracting Practices

The practice of TC underwriting capital acquistion costs for new CN Marine vessels, and then allowing depreciation costs for such vessels when negotiating subsidy contracts is questionable. If TC continues to effectively underwrite vessel procurement for CN Marine, then depreciation should be factored into service fee calculations, but not into operating costs for purposes of subsidy calculations. The $62 million Abegweit, paid for by the Crown, would on a 20-year depreciation basis cost the Crown a further $3.1 million in annual subsidies.

OPTIONS

The study team recommends to the Task Force that the government consider continuing the rationalization, economy and efficiency measures initiated in the last several months. These measures include:

1. Elimination of profit margins built into contracted subsidy payments;

2. Adoption of equitable and progressive fee structures for all services provided;

3. Rationalization of services and routes, with a view to eliminating uneconomical modes of transportation (e.g. rail ferries), uneconomical service levels and off-season routes.

In addition, government may wish to consider the following measures:

1. Establish, by December 31, 1985, appropriate CN Marine multi-year capital expenditure planning, requirements definition, contracting and cost control mechanisms for handling CN Marine capital acquisitions.

2. Adopt a consistent and rational policy concerning TC capital investment in CN Marine vessels, and related depreciation expense allowances built into subsidy contracts for use of such vessels. Use of capital appropriations to finance CN Marine capital asset requirements should be considered.

3. Examine potential economies to be realized through rationalization of Newfoundland Coastal and Gulf Services, particularly with respect to modes of freight trans-shipment.

APPENDIX "A"

FINANCIAL PROFILE OF CN MARINE FERRY SERVICES - 1984-85*
(millions of current dollars)

Service	Cost of Provision	Revenues	Subsidy	Subsidy as % of Cost
North Sydney, N.S. to Port aux Basques, Nfld.				
Water	59.2	13.6	45.6	77
Rail	25.3	4.2	21.2	84
North Sydney, N.S. to Argentia, Nfld.	8.8	2.3	6.5	74
Nfld.	42.2	3.1	39.0	93
Borden, P.E.I. to Cape Tormentine, N.B.				
Water	36.3	7.0	29.3	81
Rail	3.4	0.2	3.3	94
Digby, N.S. to Saint John, N.B.	16.5	6.7	9.8	59
Yarmouth, N.S. to Bar Harbor, Maine	16.2	8.0	8.1	50

* Forecast

FERRY SUBSIDIES
(Transport Canada)

OBJECTIVES

To provide intra-provincial coastal freight and ferry services for which Canada is responsible, particularly those under Terms of Union and Confederation.

AUTHORITY

a. Legislative - Department of Transport Act
b. Policy - Water Transportation Assistance Policy (Approved by Cabinet in 1976)

DESCRIPTION

Provincial coastal freight and ferry services must fall into one of the following five categories in order to be eligible for subsidy assistance under the Water Transportation Assistance Policy:

a. Constitutional Service;
b. Alternative to constitutional service;
c. Newfoundland coastal service;
d. Services providing a special developmental opportunity; or
e. Services relieving the effects of remoteness or isolation.

Prior to 1977, the Canadian Transport Commission subsidized some intra-provincial coastal shipping and ferry services in British Columbia, Newfoundland and Quebec.

When Transport Canada assumed responsibility for the subsidy program, the contributions previously paid to companies were converted to annual grants, adjusted annually to match inflation and paid to the provincial governments. Inflation indexing is on the basis of provincial CPIs.

An agreement was signed with B.C. in 1977, with Newfoundland in 1979 and with Quebec in 1980 (backdated to 1979). The latter two agreements were to expire on March 31, 1984, while the B.C. agreement was in perpetuity.

The Quebec and Newfoundland agreements were extended for one year to March 31, 1985.

BENEFICIARIES

Beneficiaries are travellers and shippers of goods between certain areas within the provinces of British Columbia, Newfoundland and Quebec.

EXPENDITURES (millions of current dollars)

Actual and forecast subsidy grants for these provincial ferry services are:

Grants	82-83	83-84	84-85	85-86*	86-87*	87-88*
B.C.	12.5	13.8				
Nfld.	5.0	2.1				
Quebec	2.0	2.7				
TOTAL	19.5	18.6				

* Expenditures will depend on the results of pending federal decisions to "buy-out", extend, terminate, and/or allow agreements to lapse.

ASSESSMENT

In May 1983, Cabinet directed that the Quebec and Newfoundland Agreements should be extended until March 31, 1985, and that in the intervening period, attempts should be made to explore other future arrangements.

The agreement with B.C. requires that the escalation clause be examined every five years and Cabinet, in May 1983, implied that before the end of the second five year term, (March 31, 1987) discussions should be held with the Province regarding the future of the agreement.

Treasury Board approved the extension of the Newfoundland and Quebec Agreements and discussions to explore possible future arrangements are in progress.

OPTIONS

The study team is of the view that steps should be taken with the provinces affected to phase out the various ferry subsidies.

OVERVIEW
RESEARCH AND DEVELOPMENT PROGRAMS

Adequacy of Overall R&D Levels:

The 1985 target of 1.5 per cent of GNP for gross expenditures on R&D in the natural sciences (GERD) assumes that we need to catch up with trading partners who "spend, in proportional terms, one and a half to two times as much on their overall R&D effort as we do."

Recent analyses suggest, however, that "overall, the actual degree to which Canada 'underinvests' in R&D is less than broad international GERD/GDP comparisons would suggest", particularly when the major structural differences between Canadian and foreign industry are taken into account. In broad sectoral terms, R&D seems adequate in the agricultural and tertiary sectors and more than adequate in the mining sector. Canada's low GERD/GDP is in large measure due to the comparatively limited role played by manufacturing in the Canadian economy and low R&D spending in manufacturing. This can in turn be attributed to: (a) the high degree of foreign ownership in the Canadian manufacturing sector; (b) the relatively small population in R&D intensive sectors, such as aerospace, pharmaceuticals, electronics, and petrochemicals; and (c) the comparatively low levels of R&D in certain sectors such as chemicals and non-ferrous metals.

Team members are, consequently, not convinced that there is a need to mount a major thrust -- or to throw extra "big bucks" -- towards bringing Canada's overall R&D spending to a per cent of GNP equal to that of other countries. We did find fairly compelling evidence, however, of a need to assess carefully and pragmatically the adequacy of R&D in each of the major Canadian industrial sectors; to determine the extent to which we should be involved in high-cost, R&D intensive areas such as aerospace; and to spend available resources more selectively.

Funding and Performance of R&D

Assumption of responsibility for R&D funding and conduct has been shifting gradually away from government toward industry, with the higher education share remaining relatively stable. Generally speaking, federal and university laboratories have focussed on increasing the existing stock of knowledge while industry has paid more attention to the applied research and experimental development phases of R&D.

GROSS EXPENDITURES ON R&D (GERD) by Main Performing and Funding Sectors in Percentages								
	Performers				Funders**			
Years	Fed. Gov't	Bus. Ent.	Higher Education	Other	Fed. Gov't	Bus. Ent.	Higher Education	Other
Average								
63-67	34	41	21	4	47	32	12	9
68-72	31	39	26	4	48	33	12	7
73-77	29	41	26	4	43	33	13	4
78-82*	24	49	23	4	36	41	12	4
83*	-	-	-	-	24	51	20	5

* Estimates
** Some tax expenditure support may be included.

Internationally, Canada's approach to government performance and funding of research seems, like that of most European countries, to lie somewhere between two extremes: the U.S. pattern in which industry receives the lion's share of government R&D funds and the Japanese pattern in which industry is left virtually to its own devices. This wide variation in successful R&D approaches suggests that broad assumptions about where research should be done may not be all that valid in Canadian terms. Only after R&D needs have been identified on an industry-by-industry or sectoral basis can we best decide who should be filling the gaps and who should pay for it.

PROGRAM ISSUES

In reviewing a seemingly endless array of tax, grant, and laboratory programs, the study team noted a number of recurring themes: (a) the appeal of tax incentives as a partial replacement for grants and the hazards of succumbing to that appeal before we have found better ways to assess costs and impacts; (b) the need to co-ordinate, focus, and control the use of direct expenditures in relation to tax benefits and federal R&D priorities; (c) the need to inject greater client responsiveness into federal laboratories; and (d) the pay-off which could be derived from more creative and efficient ways to access the 98 per cent of technology developed in other countries.

The Tax Dilemma

The benefits to be derived from greater reliance on the tax system are well-known. Like industry, the team members found the certainty, automaticity, and low government-administration costs associated with a tax approach attractive. We also found that current ITC's were, from this point of view, an effective, if inefficient, means of providing assistance to taxpayers who incur qualifying expenditures. The study team has reservations, however, concerning: the current definition of R&D, the adequacy of refundability provisions, and the advisability of maintaining regional rate differentials. The team also looked at a more radical proposal which would substitute an Automatic Matching Incentive system for the ITC's and a substantial proportion of direct expenditures. This proposal has a number of attractive features, notably improved refundability, visibility, and accountability provisions, but requires more detailed study to determine its costs and impacts.

The administrative and climate-setting advantages of the tax system are, however, offset by certain limitations which the team felt should be addressed before any major changes are made in the current tax-grant balance. For one thing, there is a disconcerting lack of control over the total costs associated with tax expenditures; estimates for R&D incentives range from 200 to 250 million dollars per year, not including the unexpected billion dollar plus costs associated with the SRTC's in 1984. Second, the tax system is generally a more expensive and less efficient way than grants to stimulate incremental R&D because of the free rider problem. It provides across-the-board assistance and does not take into consideration factors such as the quality of R&D supported, the degree of risk involved, or the firm's ability to finance a given project. Third, there is little evidence that tax incentives are any more likely to stimulate incremental R&D than grants. In fact, the incrementality of tax is probably less. A recent U.S. study of R&D tax credits in the United States, Sweden, and Canada concluded that: (a) these credits had only a modest effect on R&D expenditures and (b) these incremental expenditures were in all cases "considerably less than the cost to the government in reduced tax revenues". Sweden eliminated its tax credit system in early 1983 because of similar concerns.

"Two handed giving" - The Need for a more Judicious Balance in the use of Tax Incentives and Direct Expenditures:

The benefits and hazards of using a "two-handed" grant plus tax approach are well-known. In theory at least, this approach should allow us to complement across-the-board assistance with support directed toward the achievement of more narrowly-focused objectives such as, for example, the development or application of a specific technology in a particular firm or industry. In practice, although some of the individual programs functioned reasonably well in their own right, there seemed to be a widespread lack of control of funding levels relative to tax benefits and other grants or direct expenditures.

In this context, the study team was struck, first of all, by the generosity with which grants are handed out with the right hand without due regard for what the left hand has already given through the tax system. Most contribution programs lack adequate mechanisms to integrate tax considerations into their funding decisions. Other programs, notably DRIE's IRDP, have tried to come to grips with this problem by setting a total tax-grant funding limit of 90 per cent; these limits seemed to the team, however, to be excessively generous given limited resources, the large number of proposals requiring funding and the increased risk, with such high funding limits, of shifting more of the costs for non-incremental activities from the firm to the government. Team members were tempted to suggest maximum grant plus tax funding limits of, say, 75 per cent. They recognized at the same time, however, that injudicious application of such ceilings could provide too much funding in some cases and too little in others, e.g. where the risks are exceptionally high, where there are significant inappropriable benefits, where firms have to compete with highly-subsidized international firms (DIPP), or where the government has made a conscious decision to push a particular industry or technology. For these reasons, the team recommends to the Task Force that the government consider the use of one or both of the following approaches:

a. Establishment of a grant plus tax ceiling of, say, 75 per cent with the condition that Ministerial approval will be required on a case-by-case basis for funding in excess of these limits;

b. Use of the tax system to minimize or reduce duplication of assistance resulting from application of both tax and grant incentives. Proposals include computing the investment tax credit on net cost (after deducting grants) instead of on gross cost as at present; and introducing provisions whereby grants would reduce both the capital cost of the related assets and/or deductible scientific research expenditures and the investment tax credit. Further details are given in the Industrial Incentives Overview.

The almost limitless array of federal and provincial granting programs -- and the "elephantine" nature of some of these programs -- will also have to be tackled if the more selective approach outlined above is to have any chance of working. Right now, the system is a veritable gold mine for entrepreneurial "stackers" of benefits, and a discouraging morass for other firms who don't even apply for assistance, let alone stack. In this context, there is a clear need for a fairly drastic reduction in the number of programs with related objectives and, more specifically, for: an intregration of IRAP, PILP, and IRDP-innovation into a single technology transfer program; rationalization of major ($1 million and up) assistance provided through DIPP and IRDP; and a thorough revamping, perhaps by MOSST and DRIE, of federal support to some 330 technology centres and centres of excellence.

The study team also noted a need to achieve a better balance between company- and project-specific support and research on major cross-company gaps in technology. There are serious concerns about excessive reliance on project-by-project assessments (until money runs out) and, above all, about the inefficiencies which could result from funding the development of essentially the same technology again and again, but in different companies. A clear and adequately-funded contracting-out program could go a long way toward addressing these concerns, as could more concerted efforts to avoid re-inventing technology developed in other countries.

Federal Laboratories: The Need for Greater Client-responsiveness

The federal government is the largest performer of R&D in Canada. Its laboratories spend more than $1.3 billion annually, employ more than 20,000 scientists, administrators, and support staff, and manage assets valued in the hundreds of millions of dollars. Initially, certain institutions, such as NRC, were primarily involved in advising government or performing basic research. As the years went on, though, these laboratories branched out into a wide range of activities with muddy and sometimes conflicting objectives. This, in turn, has given rise to serious questions concerning the relevance and "micro-management" of these activities and the role which should be played by federal laboratories in relation to industrial and university labs. The study team did not tackle the problem of role definition per se, feeling that these questions might best be dealt with by MOSST, perhaps in the context of their proposed review of the relevance and management of all federal laboratories. The team did feel in looking at NRC specifically, however, that certain pragmatic measures could be taken to inject greater client responsiveness into government performance of R&D at NRC in particular, and that this responsiveness could in turn force certain major changes in the system.

Curiosity-driven research was, in the opinion of the study team, one of the major benefits to be derived from living in an advanced society as well as one of the critical factors in remaining internationally and technologically competitive. In the opinion of the study team, this curiosity-driven research should, however, be subjected to a far more stringent client or peer review process. Available resources should be redirected to support those rare and exceptional researchers who are capable, in the judgment of their peers, of making outstanding international contributions. This may mean paying more attention to some sectors and even ignoring others where there are no outstanding researchers. One idea would be for NRC to adapt a granting system vis-à-vis its own labs which would be similar to that used by NSERC for the support of university research. A pool of money and person years could be set up from existing resources and reallocated at the total discretion of Council towards supporting exceptional NRC researchers.

A more co-ordinated peer review process involving NRC and the various granting councils (NSERC, SSHRC, MRC) could, and probably should, lead to a redistribution of resources for this type of research between universities and federal laboratories and could even result in the placement of certain laboratories in a university context. The team felt strongly, however, that such a redistribution should not take place until issues surrounding the use of established program financing funds by the provinces are resolved.

Research in support of national, social, and economic objectives: NRC laboratories perform research in areas of major social and economic importance for which the policy responsibilities lie elsewhere: health, forestry, agriculture, fisheries, environment, transportation. The "free" nature of most of these services -- provided through NRC's A-base -- provides no real incentive for lead departments to rationalize these programs or to take them into account in the development of sectoral policy. One way to force rationalization in this area would be to make these services more client-responsive, e.g. to make them more responsive to the policies and priorities of responsible policy ministers through the development of cost-recoverable "technology support" programs in each area. Full-cost recovery for the use of NRC national facilities should be included.

Applied Research: Recent evaluations of NRC's program of Laboratory Support for Industrial Innovation (INDL) indicated realized industrial revenues and cost-savings far in excess of expectations, particularly for the contracting-out program. The study team was strongly convinced here again, however, of the need to make this program more client-responsive and even client-driven in terms of the overall direction and management of major projects. At present, industry's involvement in the funding and management of laboratory activities is limited. Industry provides only one per cent of the funds as compared with five per cent in Sweden. NRC's associate and advisory committees provide valuable advice which is frequently acted upon; they have essentially no teeth, however, when it comes to effecting necessary changes in the management of laboratory activities.

Stronger measures will have to be taken to force, if need be, greater client-responsiveness into intramural research. One way of approaching this problem would be to vest management responsibilities for NRC's Industrial

Development Office in a board or committee of Council with strong industrial representation. This office could then be given responsibility for the allocation of funds to industry through a combined IRAP-PILP-IRDP contribution program and could also provide funds to individual NRC laboratories for either intramural or contracted-out projects. Making individual laboratories compete for funds and person years from a centralized pool of resources could stimulate early identification of industrially-relevant technologies in a way in which the peer review process has never been able to do.

Other measures which could be considered to increase "market pull" on laboratory research include: (a) shifting funds from intramural and contribution programs into a greatly-strengthened contracting-out program; (b) transforming the Division of Building Research Laboratory into a joint federal-provincial-industry institute; (c) phasing-in fullcost recovery for measurements, calibrations, and the use of national facilities as a first step towards eventual privatization of at least some of these services; and (d) increasing the use of more flexible temporary appointments and two-way exchanges in the staffing of federal laboratories.

The team noted, however, that injection of greater client-responsiveness into laboratory research would cause a fair amount of initial pain in that it would involve redistribution of funds and person years out of certain laboratories or contribution programs; it would also, in the opinion of the team, mean increasing the flexibility given to Council for the management of resources and, particularly, person years.

Technology Diffusion

Technology diffusion is also becoming increasingly critical. The current time lags involved in the adoption of new technologies (98 per cent of which come from abroad) is disconcerting, as is the increasing tendency on the part of certain countries such as the U.S. to restrict access to leading-edge technologies developed in their own countries. These trends suggest a more active role on the part of the government in stimulating cross-company diffusion of technology through joint research, IRAP knowledge-transfer functions, and an expansion of current CISTI data bases to include Canadian and U.S. patent information. In this context, the study team felt that particular consideration should be given to the following areas:

a. The astonishing role played by proximity to federal laboratories in technology-diffusion and the distribution of federal contracts and grants. A review of this factor could lead to more specific policies regarding further decentralization of federal laboratories and/or increased funding for more widely dispersed university laboratories and research institutes.

b. The role played by multinational corporations in the performance of R&D and the importation of technology developed elsewhere. This review should lead to clearer policies regarding access to contracts, grants, and license/patent arrangements for technology developed in federal laboratories.

c. The more creative role which could be played by Canada Patents and Development Limited (CPDL) in marketing government technology to the highest bidder, and perhaps even in recycling a portion of increased royalties back to federal laboratories which developed the technology. Policy issues here are quite complex and warrant careful study.

d. The need to develop better links between the 98 per cent of technology developed in other countries and Canadian industry. Here the role played by science counsellors and trade commissioners should be reassessed and revamped, perhaps with a view to increasing international linkages included in CISTI.

Conclusion

On balance, the team members were not convinced that Canada should mount a major thrust, or throw extra resources, toward increasing R&D spending to GERD levels equal, in overall percentages, to those of other nations. We did, however, find compelling evidence of a need:

- to develop long-range, industry-specific plans for selective, focused investment in R&D;

- to decide the extent to which we should be involved in costly R&D intensive industries such as aerospace;

- to achieve better accountability for tax incentives and a more effective balance between these incentives and direct subsidies;

- to rationalize current granting programs and control stacking; and

- to make all federal research and funding programs more client-responsive.

This fairly substantial agenda suggests that much more will have to be expected of the Ministry of State for Science and Technology, (MOSST), as a central advisory and co-ordinating body, than it has been able to deliver in the past. MOSST should be able to act as both an informed counsellor -- providing sound advice on federal policies, priorities, and funding -- and as an observer of the management of federal laboratory and granting efforts. In this context, particular consider- ation could be given to improving the linkages between the overall policy responsibilities of the Minister for Science and Technology and the controls over federal expenditures exercised in this area by the Treasury Board. Consideration could also be given to clarifying the role of the National Research Council and providing its President and Council with the kind of managerial flexibility which they will need to inject greater client- and policy-responsiveness into their programs. Finally, there should be a special, revised role for in-depth enquiries into critical areas by the Science Council and even a strengthened role for NSERC in co-ordinating aid to universities now provided through three separate councils.

Cost-savings should result from increased cost-recovery, partial privatization, and overall reductions in contribution limits; the exact amounts cannot be determined without further study, however.

CANADIAN PATENTS AND DEVELOPMENT LIMITED (CPDL)

OBJECTIVES

To make available to the public, through contractual arrangements with industry, the industrial and intellectual property resulting from publicly funded research and development, and to protect such technology for the benefit of Canada.

AUTHORITY

The CPDL is a Crown Corporation incorporated in 1947. Its mandate is to secure the optimum exploitation for the benefit of Canada of licensable material accruing to the Crown from government facilities and publicly funded institutions and agencies.

DESCRIPTION

The corporation obtains and patents federal government funded inventions that have commercial application and assists in the technology transfer by licensing to the private sector.

It also acts as an agent for Canadian universities and provinces. However, the current trend is for these organizations to set up their own licensing operations because CPDL's licencing fees are very low and the licencing is primarily only with Canadian firms.

BENEFICIARIES

Canadian companies that are able to utilize the patents benefit as well as the public which is provided with products using new technology.

EXPENDITURES (millions of current dollars)

	83-84	**84-85**	**85-86**
Revenues	1.6	1.6	1.8
Expenditures	1.9	2.2	2.3
Net Loss	(.3)	(.6)	(.5)
Person Years	25	27.5	27.5

OBSERVATIONS

CPDL appears to be struggling in its attempt to perform the function of transferring the technology to industry for a number of reasons:

- the communication link from CPDL to the responsible department, DRIE, appears to be weak and the department's interest in CPDL is low at best;

- CPDL management has not been appointed for a long period. The organization is currently headed by an Acting President who has been in this position for five years; and

- the CPDL board of directors (now Governor-in-Council appointments) has vacancies and appears to contribute little to the organization's operation.

ASSESSMENT

The operation needs better guidance and attention from DRIE. Also, if the mandate of CPDL is indeed to secure the optimum exploitation of licensable technology, then some consideration needs to be given to a better method to attain this end.

OPTIONS

There are a number of options available ranging from the dissolution of CPDL, to its retention with an expanded mandate. The study team recommends to the Task Force that the government consider retaining CPDL, with a revised objective, either as a Crown corporation or as a separate branch within a strong, interested department.

The basic objective of CPDL should be the maximization of world-wide revenues from intellectual property administered by Canada and such provinces, universities and other public institutions as wish to opt in. The Canadian benefits could be protected by offering Canadian firms a first right of refusal at competitive licensing rates.

At the same time the capabilities of management, and the Board if it remains a Crown corporation, should be strengthened.

Means could be found to permit the licencing revenues generated by CPDL to be routed back into the R&D stream, thereby providing increased incentive to participate in the process.

TECHNOLOGY CENTRES
(Regional Industrial Expansion)

OBJECTIVES

To establish self-sufficient centres to demonstrate and disseminate information concerning industrial technology in a specific area to private industry and other interested parties.

AUTHORITY

Previously the technology centres were funded through the "industrial climate" element of IRDP; when the climate element was eliminated, new technology centres were funded through ERDA Sub-agreements and committed technology centres continued to be funded under Vote 10.

DESCRIPTION

Since 1967, seven types of technology centres have been established:

industrial research institutes (IRI)
centres for advanced technology (CAT)
industrial research associations (IRA) — DRIE
management advisory institutes (MAI)
industrial innovation centres (IIC)

centres for international business studies (CIBS) — DRIE, EA since 1982

centres of excellence - SOS

Management Advisory Institutes are no longer funded by the federal government, and no commitments for federal funding have been incurred since 1982. Industrial Research Institutes are no longer being established, and no federal commitments will be incurred after 1984-85. Centres for International Business Studies were transferred to External Affairs in 1982; five universities each receive $80,000 of CIBS funding annually until 1986-87. Funding by the Department of the Secretary of State for "centres of excellence" was in the form of grants to establish selected universities as centres of expertise in certain areas; this program has been abandoned, and no financial commitments are required after 1984-85. The three remaining types of technology centres are:

Centres for Advanced Technology (CATS): universities or Provincial Research Organizations (PROs) which operate R&D facilities related to advanced technologies (Twenty-three CATs have been established: six are self-sufficient, four are no longer functioning and thirteen are being funded).

Industrial Research Associations (IRAS): organizations carrying out R&D related to specific sectors and supported by companies in the sector. (There are eight IRA's, of which four are self-sufficient and four are being funded.)

Industrial Innovation Centres (IICS): units established by universities to study the entrepreneurial process and assist inventors in getting inventions to the marketplace. (Two have been established at the Universities of Montreal and Waterloo, both of which will get funding until 1985-86.)

The technology centres receive financial assistance under the program for five years (with a possible one to three year extension), after which they must either be self-sufficient or discontinue operations.

BENEFICIARIES

CATs	IRAs	IICs
13 universities six PROs small to medium sized firms wanting to acquire familiarity with advanced technologies	seven producer associations Canada-Israel Institute for Industrial R&D	two universities novice inventors seeking to become entrepreneurs

EXPENDITURES (millions of current dollars)

From 1967-68 to 1983-84, a total of $33.3 million was spent. $26.7 million is committed to 1989-90 for all DRIE-sponsored technology centres.

	83-84	**84-85**	**85-86**	**86-87**	**87-88**
CATs	2.5	6.3	5.8	3.9	2.2
IRAs	0.3	0.8	0.7	0.6	0.4
IICs	1.6	2.6	2.0	0	0

Excluded from expenditures above are $43.1 million "forecasted" expenditures.

OBSERVATIONS

The Universities of Alberta and Laval have established MAIs that have become self-sufficient. Eleven IRIs have been established to facilitate small company use of technical expertise and laboratory facilities in universities. Eight are self-sufficient, two are no longer functioning, and one is being funded.

Much of the gross revenue for the "self-sufficient" technology centres is derived from government grants for R&D.

In some provinces, the CATs duplicate centres specializing in similar types of expertise; for example, seven CATs specialize in micro-electronics, two in metal related technology and three in fish and oceans research (including two in Halifax).

ASSESSMENT

Relative to tax incentives and federal grants for R&D, contributions toward technology centres are very small.

In principle, there is a sound economic rationale for government intervention in information dissemination and a somewhat weaker case for intervention in R&D (see Note on Technology Policy vs. R&D Policy). This argues for continuation of some government support for technology centres.

One of the key issues or problems with current federal support for technology centres is the enormous duplication among them. More than 330 technology centres are currently in operation in Canada, including the 36 or more presently supported by DRIE and covered by this assessment note; the Departments of Agriculture, Environment, Fisheries and Oceans, Energy, Mines and Resources, National Defense, and Communications as well as NSERC, the NRC, AECL, universities, PROs and private industries all sponsor technology centres. In addition to the expenses incurred, the excessive number of technology centres tends to fragment the expertise and divert technologically advanced personnel from private industry.

To a small extent the technology centres divert business from patent lawyers, consultants and other private sector concerns.

The reaction from organized labour, provincial governments and producer associations to the IRAs has been very favourable.

In the future, funding for the technology centres is likely to be derived from the ERDA process. This is likely to lessen the federal-provincial overlap of technology centres within a province but to increase that overlap among the provinces, to weaken the ability of the federal government to pursue a national innovation policy and, perhaps, to lead to excessive capitalization of the centres.

OPTIONS

The study team is of the view that significant improvements could be achieved in the federal government's operation of technology centres if a very substantial rationalization and consolidation of the centres took place. The consolidation should involve not only those centres presently sponsored by DRIE but also those sponsored by other federal and provincial departments. There should be an emphasis on most of the technology centres achieving self-sufficiency within four to six years, although for those centres whose primary role is general information dissemination and assistance to novice inventors or prospective small business people the criterion of total self-sufficiency need not apply.

CANADA CENTRE FOR MINERAL AND ENERGY TECHNOLOGY (CANMET)
(Energy, Mines and Resources)

OBJECTIVES

To ensure the availability to Canada of adequate technology for the extraction, processing, use and conservation of mineral resources and energy resources.

To ensure compliance with the Canada Explosives Act and Regulations.

AUTHORITY

CANMET operates under the mandate of the following statutes:

the Department of Energy, Mines and Resources Act;
the Resources and Technical Surveys Act; and
the Canada Explosives Act.

DESCRIPTION

The minerals technology activity encompasses: co-ordinating the federal research effort in mining and mineral processing; promoting and supporting R&D by industry and universities in the mineral field; performing applied R&D in mining technology, mineral extraction, metallurgy and the utilization of metals and alloys; identifying technological opportunities in mining and metallurgy; and transferring technology to the private sector.

The energy technology activity includes conducting applied research and engineering development in selected areas, including energy conservation; heavy oils and oil sands development; coal development and conservation; uranium recovery; energy transportation; identifying technological opportunities in energy; and transferring technology to the private sector.

CANMET is also involved in the development, testing and authorization of all explosive materials used in Canada as required by the Explosives Act.

Major efforts are devoted to the reduction of health and safety problems in mining, and to minimizing the environmental impact of effluents from the mining and mineral-processing industries and the burning of coal as an alternative fuel.

These tasks are performed through contracts with the private sector (approximately 20 per cent of total budget) and in-house facilities in the National Capital Region and research laboratories at Elliott Lake, Calgary, Edmonton and Sydney.

BENEFICIARIES

This program directly benefits the industry in general through improvements in its economic performance and productivity and indirectly benefits the Canadian population as a whole.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86
Salaries & Wages	27.1	28.9	30.3
Other O&M	22.3	32.6	34.2
Grants & Contributions	.2	.5	.1
Capital	11.0	12.4	10.1
TOTAL	60.6*	74.4*	74.7*
Person Years	801	797	803

* Of these amounts, an average of 50 per cent is used by four projects which are due to sunset over the next five years. Currently, 118 person years are consumed by the same projects.

OBSERVATIONS

The Canadian mineral industry has gone through a severe downturn since 1980. For instance, at the end of December 1982, there were close to 60,000 employees out of work or about 50 per cent of the workforce involved in mining, smelting and refining. Recently, however, the situation has improved significantly with total employment reaching 111,100 at the end of December 1984, though this is still more than 17,000 short of the level reached in 1980 according to Statistics Canada. On the other hand, the total value of production has not yet recovered. It was at $12.3 billion for 1984 compared to $20.9 billion for 1980. These statistics serve to illustrate the importance of this industrial sector for the Canadian economy.

CANMET is the major technological research arm of the Department of Energy, Mines and Resources (EMR). It was established in 1907 as the federal Mines Branch, to help meet the research and development needs of a young and rapidly developing Canadian mining industry. In 1974, it was reorganized and renamed to reflect more accurately the activities that were added over the years in the fields of mineral and energy technologies.

In 1968, the Minister of EMR established the National Advisory Committee on Mining and Metallurgical Research to provide a link between the EMR research organization and the user community and to advise him on:

- mining and metallurgical research in Canada;
- coordination of federal research programs with others; and
- sponsorship of university and other research programs and projects.

The membership of the Committee is as follows:

- a senior officer of EMR and an industry representative appointed by the Minister to co-chair the committee;
- six representatives of the Canadian mining and metallurgical industries;
- three representatives of provincial governments or research agencies;
- three representatives of other departments or agencies of the federal government; and
- individual scientists or engineers designated by the Minister as deemed appropriate.

Costs are recovered from clients, both inside and outside of government, for specific scientific and technical services provided by CANMET on request, including most of the testing and certification functions routinely performed. The funds accruing from cost recovery are credited directly to the Consolidated Revenue Fund. The total amount of cost recovery in fiscal year 1984-85 should reach approximately $1.5 million.

In 1981, the Office of Technology Transfer was created within CANMET. Its activities focus on intellectual property and assistance to line divisions of CANMET in relation to patent and licensing applications, special information packages, market studies and industry assessments. It also ensures that the planning of research projects includes consideration of eventual technology transfer.

ASSESSMENT

The R&D effort of the Canadian minerals, metals and energy industries is substantial, with total expenditures estimated at $650 million in 1983. The CANMET budget for the same year amounted to $60.6 million or 9 per cent of private sector expenditures.

It should be noted, however, that the R&D programs of private industry are directed towards solving company problems. In recent years, mostly because of the economic situation, emphasis has been placed on shorter term R&D and the improvement of existing processes rather than the development of new ones. R&D for the benefit of the industry as a whole or the public has limited appeal for individual firms. This is where CANMET must play a significant role if the industry in general is to regain its lost ground through improved productivity and hence competitiveness.

Through CANMET, the federal government was successful in centralizing public sector involvement in minerals and metals R&D. Quebec is the only province with significant research facilities in these fields.

CANMET is a mature organization with strong scientific and professional competence which is guided in its R&D programming by the National Advisory Committee on Mining and Metallurgical Research which, because of its varied representation, ensures that the results of its efforts are beneficial to the industry as a whole and to the Canadian population in general.

OPTIONS

Considering the importance of these industrial sectors to the economic well-being of all regions of Canada, the study team recommends to the Task Force that the government consider encouraging CANMET to pursue its activities with a special emphasis on productivity enhancement and energy development and conservation. As much as economically and technologically feasible, the department should increase its contracting-out to private laboratories and revise its fee structure to bring it as close as possible to full cost recovery.

As an incentive to increase the commercial activities of the facility, the government may also wish to consider returning to CANMET 50 per cent of the revenues generated from service fees and royalties.

INDUSTRIAL DEVELOPMENT PROGRAMS
INDUSTRIAL RESEARCH ASSISTANCE PROGRAM (IRAP)
(National Research Council)

OBJECTIVE

To enhance the research and development capabilities of Canadian industry and facilitate access to current technology.

AUTHORITY

Appropriation Act

DESCRIPTION

Provides technical information through IRAP-C (Field Advisory Service maintained by specialists from NRC, provincial organizations, and engineering consultants in 25 offices across Canada) and IRAP-F (a Technical Information Service which is located in Ottawa and which draws on scientific literature and laboratory expertise to solve specific technical problems).

Provides financial assistance through contributions under IRAP-H (pays salaries of undergraduates for up to four months to help small firms solve specific production, design, or quality control problems), IRAP-L (provides small firms with up to $4,000 to contract problem-solving investigations with research laboratories or consulting services), IRAP-M (covers up to $30,000 of the salary costs of specialists working on short-term R&D projects for small firms) and IRAP-P (covers a maximum of 80 per cent of the salary costs associated with long-term R&D projects).

BENEFICIARIES

Beneficiaries of information services are primarily small (up to 200 employees) and medium-sized companies with limited or no technical resources. Project funding also primarily benefits small firms which accounted for 81 per cent of projects and 60 per cent of funds under IRAP-M and IRAP-P in 1983-84. (Of these, 84 per cent of IRAP-M and 60 per cent of IRAP-P projects involved firms with less than 25 employees.) As with the related IRDP innovation element (DRIE), sectors most dependent on innovation (electronic and food processing) and projects with a high proportion of salary versus capital costs

tended to benefit most. Geographical distribution for IRAP-P corresponds roughly with manufacturing GDP (Ontario received 64 percent of IRAP-P funds); small project elements are, however, providing increasing support in the Maritimes, Québec, and the Western provinces. (16 percent of IRAP-H projects were in Newfoundland.)

EXPENDITURES (millions of current dollars)

		83-84 Actuals	84-85 Forecasts	85-86 Main Est.
Contributions	IRAP-C	3.9	6.0	5.5
	IRAP-F	1.3	1.6	1.0
	IRAP-H	3.7	4.5	4.3
	IRAP-L	3.0	6.0	4.8
	IRAP-M	5.0	6.8	7.7
	IRAP-P	25.4	25.3	24.0
TOTAL Contributions		42.3	50.2	47.3
Operations and minor Capital		1.1	2.0	1.6
Salaries and fringe benefits		3.0	4.6	4.8
Person Years		71	93*	93

* Total staff includes support of 74 specialists in provincial research organizations and other provincial institutes; 13 from specialized centres; and 18 from the Association of Consulting Engineers of Canada in addition to NRC staff.

OBSERVATIONS

The Wright Report states that "The programs most highly praised in briefs and interviews were IRAP and, to a lesser extent, PILP. We found a strong consensus among industry spokesmen that they really do work and we think we understand why. Both programs are administered by the National Research Council, an organization which fully understands the risky nature of the projects it supports. Because the administrations of IRAP and PILP speak the same technical language as their corporate clients, these programs are managed in a far less complex, far more business-like manner." This assessment is supported by the results of a 1983 NRC client survey showing IRAP ratings of

"much better" than similar programs for speed of decision-making, simplicity of procedures, and technical advice and assistance. A 1983 DRIE evaluation of the IRDP innovation element showed, on the other hand, that delivery of this related program "was slow and uncertain from a user perspective".

Program characteristics said to contribute to the high client-satisfaction rate include: the responsive ("market-driven") nature of the program; the specialized focus of services; selection of specialists with industrial experience; targetting of components to specific types of clients and projects; back-up from NRC data bases (CISTI) and lab personnel; and decentralization of decision-making.

Results: The 1983 NRC-IRAP evaluation concluded that there was a positive relationship between the degree of IRAP involvement and short to long-term technological progress in client firms. Some 90 per cent of firms assisted through PILP or IRAP reported that their R&D capacity had been enhanced. Program components (IRAP-P) involving large companies with well-defined business plans and commercialization strategies were significantly more successful in terms of direct sales benefits. Small business components (such as IRAP-M) resulted in lower direct sales benefits, but when judged against the primary objective of increasing R&D activity in small companies, the component can be considered successful in 75-80 per cent of projects.

Client access: The percentage of surveyed firms who were not aware of NRC services was quite high, particularly outside major manufacturing and laboratory centres. A recent decentralization of the Field Advisory Services is, however, resulting in dramatic increases in the number of firms requesting assistance in certain areas, notably in P.E.I. and Victoria. Measures being considered by NRC and NSERC to improve linkages with universities should result in further improvements in client access to technology.

International Technology: Approximately 98 per cent of the technology which might benefit Canadian firms is developed outside of Canada. Measures which could be taken to identify and tap this technology are currently under discussion between NRC and External Affairs.

Relationship to other programs:

a. Provincial and private sector: The proliferation of research institutes and technology centres is increasing the potential for duplication and fragmentation of effort. The need for greater co-ordination of information is being addressed, in part, through IRAP's recent addition to its field staff of some 30 non-NRC specialists drawn from and situated in various specialized centres, such as the six Ontario Technology Centres and the Welding Institute for Canada. See separate note on "Technology Centres" (DRIE-967) for options for rationalizing federal funding to these centres.

b. DRIE-IRDP (innovation element): DRIE-IRDP and IRAP criteria and evaluations reveal significant overlap in the technology-transfer area. (For example, IRAP and IRDP both provide assistance for the "development of new, technically risky projects or processes." The Wright report specifically recommends that the technology-development functions of IRDP be transferred to NRC.

Problem areas: Evaluations of IRAP and PILP noted a need -- which would be particularly applicable to large PILP and IRAP-P projects -- for "greater expertise in marketing and in the financial aspects of business, which is necessary to assess the long-term prospects for commercialization of technologies." (See PILP note.)

ASSESSMENT

IRAP works. It could be used as the nucleus for the creation of a consolidated technology-transfer program involving IRAP, PILP and IRDP as well as for improved co-ordination of the technical advisory services available from various federal, provincial, and private sector centres.

OPTIONS

The study team recommends to the Task Force that the government consider using IRAP as the nucleus for the establishment of a consolidated technology-transfer program involving:

a. A transfer of IRDP technology functions from DRIE to NRC, as recommended in the Wright report;

b. A merger of PILP into IRAP-P, as discussed in the separate PILP note;

c. Improved advisory service linkages with university and international sources of technology;

d. Reduced contribution levels, as discussed in the R&D and Industrial Incentives overviews; and

e. Management by an Industrial Development Office team with strong industrial representation, as discussed in the INDL note. (NRC-106).

INDUSTRIAL DEVELOPMENT PROGRAMS
PROGRAM FOR INDUSTRY/LABORATORY PROJECTS (PILP)
(National Research Council)

OBJECTIVES

To promote application in Canada, and primarily in Canadian industry, of selected scientific and engineering knowledge which originates in government laboratories and which has the potential to bring about economic and social benefits to Canada.

AUTHORITY

Appropriation Act

DESCRIPTION

This program is the result of a 1981 integration of NRC-PILP with the Cooperative Projects with Industry (COPI) programs of other federal departments (for example, Agriculture, F&O, EMR, DOC). Technology originating in the laboratories of any of the participating departments can now be transferred to industry under the aegis of PILP; direction of the program and selection of projects are handled by an interdepartmental committee, but day-to-day management and financial accountability rest with NRC. The previous use of procurement contracts was replaced by contribution arrangements on the assumption that shared costs would increase the probability of commercialization. Projects are generally supported from the conceptual stage through to prototype or pilot plant development and are assessed against criteria designed to determine: the level of risk, barriers to commercialization, technical and business capacity of the firm, and potential benefits.

BENEFICIARIES

PILP funding is primarily directed towards small Canadian companies (firms with less than 200 employees and $5 million in annual sales). The percentage of projects involving small companies has increased steadily from 50-60 per cent initially to 80-90 per cent currently. In fact, in 1983-84, 33 per cent of PILP projects involved firms with less than 10 employees and 26 per cent involved firms with between 10 and 49 employees. The proportional division of PILP funding among specific industries in the manufacturing sector largely parallels their own expenditures on R&D.

Geographical distribution is, with the exception of Quēbec, directly related to the level of industrial activity in the type of firms which PILP is intended to support. (For example, Ontario, which has a manufacturing GDP accounting for over half of the national total, has over half of the total funding, projects, and participating companies to-date).

EXPENDITURES (millions of current dollars)

	1983-84 Actual	1984-85 Forecast	1985-86 Expenditures
Contributions	9.9	18.0	21.9
Contracts	5.9	2.3	3.3
TOTAL Project Support	15.8	20.3	25.2
Salaries & Wages			
Other O & M	0.7	0.9	0.9
Capital	0.2	0.6	0.4
TOTAL Program	16.7	21.8	26.6
Person Years	17	18	18

OBSERVATIONS

PILP is generally well-received by industry, though somewhat less so than IRAP. According to the Wright report, "The programs most highly praised in briefs and interviews were IRAP and, to a lesser extent, PILP. We found a strong consensus among industry spokesmen that they really do work... These programs are managed in a far less complex, far more business-like manner." This view is supported by a 1983 client-survey in which 90 per cent of PILP clients stated that their R&D capability had been enhanced as a result of PILP; 51 per cent cited an improvement in production, marketing, and sales capacity; and 62 per cent reported spin-off effects.

Program focus on the transfer of technology from government laboratories is somewhat controversial and has led to a certain amount of criticism from industry ("research looking for a home"). A 1985 Economic Council review of PILP concluded, however, that the PILP approach is "in principle an excellent one". Recent economic studies

"also argue quite convincingly that the primacy of market demand forces within the innovation process is simply not demonstrated", and that "it is probably better to subscribe, at least partially, to both theories".

Commercial benefits: For the early (pre-1981 procurement-oriented)program, commercial benefits were less than program costs. Major changes have since been made in criteria, procedures, and contribution levels. As a result, current five-year forecasts of benefits indicate a possibility (as yet unconfirmed) of increased commercial benefits from the revised program. Recent success-stories (involving CO_2 laser amplifiers, plant sprays, application of photogrametry techniques to auto-manufacturing, etc.) also point to improved performance.

Client access: There are a number of factors which suggest that the impact of PILP could be expanded beyond current geographical/sectoral limits: the somewhat "haphazard" approach to identification of technology-transfer possibilities (PILP evaluation); the low level of awareness of federal services in non-recipient firms (related IRAP evaluation); and the significant role played by proximity to federal laboratories in stimulating PILP projects. (The proportion of projects situated within 30 km. of a federal laboratory -- excluding New Brunswick -- ranges from 100 per cent in four provinces down to 67 per cent for one province.) The recent expansion of IRAP Field Advisory Services is expected to facilitate client access in more remote areas.

Participating federal departments: The 1983 study concluded that departments are currently participating in PILP at levels roughly commensurate with their own industrially appropriate R&D, with NRC accounting for approximately 45 per cent of PILP funding. There was some concern, however,that participating departments, which do not consider industrial support as part of their mandate, are more favourably inclined towards a project if it produces a benefit for their own work and may, therefore, tend to "look upon PILP as a supplementary source of procurement funds."

Relationship to other programs: Access to goverment technology occurs through a variety of other routes besides PILP. 92 per cent of surveyed PILP clients had access through other programs: the Unsolicited Proposals Program (44 per cent), IRAP (44 per cent), and other contacts

(23 per cent). Firms receiving technology-transfer assistance under PILP also frequently received subsequent help under DRIE and/or FBDB. This has raised questions concerning the possibility of excessive "stacking" of benefits on the part of individual PILP clients.

Implementation of PILP projects involves negotiation of terms and conditions for licences and ownership of federally or jointly-developed technology. The role played by Canadian Patents and Development Limited (CPDL) in this area is critical. (CPDL-1).

Problem areas include:

a. The need for improvements in the early identification of transferable technology and in advising industry of the availability of this technology (discussed separately in the INDL note, NRC-106).

b. The lack of PILP expertise "in marketing and in the financial aspects of business, which is necessary to assess the long-term prospects for commercialization of technologies" (1983 NRC evaluation of PILP). Suggestions for coping with this deficiency include: staff training, inclusion on staff of officers with appropriate commercial training, and greater involvement of financial experts in the interdepartmental project selection committee.

c. Contribution levels which have generally been perceived as too high to result in appropriate industrial commitment. The program is currently funding an average of 60 per cent of total project costs which is very high if benefits derived from the tax system are also considered. Funding limits are gradually being reduced by PILP management but should be cut back even more over the next two years, as discussed in the R&D and Industrial Incentives Overviews.

d. The focus of PILP on individual projects and product development could lead to situations where government funds are used to generate essentially the same information several times over, but in different companies. This program, therefore, needs to be co-ordinated with a complementary program focused on long-term, underlying problems involving a large number of companies. (See INDL note for more detailed discussion.)

ASSESSMENT

PILP's emphasis on interdepartmental co-ordination of the transfer of technology developed in federal laboratories has considerable merit. The effectiveness of program delivery has, however, been hampered by a number of factors which should be addressed: the lack of incentive (particularly in laboratories without a clear industrial support mandate) for early identification of exploitable technology; the need to involve industry more directly in funding and priorization of research; the need to improve assessment of commercial potential of proposed projects; and, above all, the need to balance PILP's focus on individual projects or companies with programs in support of cross-company research of a more fundamental nature.

One way of doing this would be to revamp the Industrial Development Office to include a management board with strong industrial as well as inter-departmental representation. This office would co-ordinate funding for NRC, industrial, and joint projects so as to increase industry involvement in funding, priorization, and management of industrial projects. If this were done, the current distinction between projects initiated by industry (IRAP-P) and projects initiated by federal laboratories (PILP) would probably become blurred. PILP and IRAP-P could then be merged into a single large-project IRAP program in support of technology links between industry and federal laboratories.

OPTIONS

The study team recommends to the Task Force that the government consider merging PILP with IRAP-P and include in a consolidated (IRAP) technology-transfer program the following elements:

a. reduced contribution levels, as discussed in the R&D and Industrial Incentives overviews;

b. management by an Industrial Development Office team with strong industrial representation; and

c. improved capability to assess the commercial viability of project proposals.

RESEARCH ON PROBLEMS OF ECONOMIC AND SOCIAL IMPORTANCE OTHER THAN ENERGY AND BUILDING AND CONSTRUCTION (National Research Council)

OBJECTIVE

To provide and maintain a capability to carry out scientific and technological research and development programs to meet national needs and priorities.

AUTHORITY

National Research Council Act; Appropriation Act.

DESCRIPTION

Research and development carried out by various NRC laboratories under this activity is aimed at the solution of problems of economic and social importance, including building and construction and energy (which are treated separately), environmental quality, food and forestry, health, public sector, and transportation requirements.

Health research includes: the development of electronic aids and communication devices for use by the physically handicapped, studies of health problems caused by vibration and sound, the development of medical and clinical devices, and studies of biological responses and control mechanisms related to cancer and toxins. The Divisions of Electrical Engineering, Mechanical Engineering, Biological Sciences, Chemistry and Physics, are involved in this area.

Environmental research is aimed at the preservation and restoration of the environment (atmosphere, water, and soil) and the improved quality and safety of the environment. The Atlantic Research Laboratory and the Division of Chemistry develop methods and produce calibration samples to assist Canadian governments and industry measure minute chemical substances, and quantities of toxic metals at levels of accuracy required by federal and provincial legislation. The Division of Biology develops criteria for environmental quality and studies the effects of mercury in aquatic ecosystems; various other divisions conduct research in atmospheric and noise pollution.

Food and forestry research includes the development of methods for producing, processing and storing foods and forest products. This work is conducted primarily by the Plant Biotechnology Institute and the Atlantic Research Laboratory and is directed towards developing new and improved crop strains and enhancing their production and utilization. Other divisions involved are Biological Sciences, Electrical Engineering, and the National Aeronautical Establishment.

Public sector research includes support for law enforcement, including the development of a bomb disposal suit and an explosives detector, and the development of computer aided learning systems and techniques.

Transportation research is aimed at improving the quality and safety of vehicles, facilities, and services related to transportation, e.g. aircraft structural and materials behaviour, railway systems and power plants, and hydraulic studies of river, harbours, and offshore structures.

BENEFICIAIRES

Clientele of other departments such as National Health and Welfare, Transport, Environment, Agriculture, Fisheries and Oceans, industry, and the general public.

EXPENDITURES (millions of current dollars)

	82-83	**83-84**	**84-85**	**85-86**	**86-87**	**87-88**
Transfers/Incentives						
Grants & Contrib.	0.2	0.2	0.2	0.2	0.2	0.2
Operating Expenses						
Salaries	8.7	16.4	17.4	17.8	16.4	16.5
O & M	3.5	6.3	7.9	7.6	7.4	7.4
Revenues		0.6	1.4	1.1	1.1	1.1
Capital	1.3	2.1	2.2	2.8	3.2	4.8
Net Expenditures	13.7	25.6	29.1	29.5	28.3	30.0
Person Years	235	394	395	387	384	386

Breakdown by sector is as follows for 1985-86:

	$ millions	Person Years
Environmental quality	4.4	51
Food and forestry	8.6	101
Health	6.4	92
Public Sector	2.3	36
Transportation	6.7	107

The 1985-86 budgetary cuts for this planning element totalled 63 person years and $36.2 million and involved the following areas: the Environmental Secretariat, the proposed Cold Regions Research Institute, energy, and electrochemistry.

OBSERVATIONS

Research in support of national, social, and economic priorities is a legitimate and essential part of government activity. In this context, the Wright report notes that "... there are scores of federal laboratories which have nothing to do with industry. Their main client is the federal government itself, whose departments and agencies frequently require research in support of specific government services, such as monitoring water quality, testing consumer products, and so on. It is perfectly legitimate, we believe, for the government to support research which improves a department's capacity for testing or monitoring, establishing codes, standards or regulations ... addressing national or regional problems, such as acid rain ...".

The direction and management of resources available for research in this area present problems, however, which are quite different -- and in many ways more difficult to solve -- than the problems associated with research in support of industrial innovation. The Wright report notes that "Because their main client is the federal government, these laboratories often have even greater difficulty in defining their missions than do labs whose main function is to support industry goals. Inertia, irrelevance, overlapping departmental mandates and jurisdictions are clear and present dangers. These intra-governmental relationships often lack the results-oriented discipline which characterizes most market transactions".

These general problems are exacerbated at NRC by the fact that, in none of the sectors listed above (health, transportation, environment, fisheries, etc.) is NRC the lead department. Traditionally, and under its legislation, NRC provides a wide range of technological support through its own A-base for programs for which the major policy and priorization responsibilities lie elsewhere. In most cases, continued provision of services by NRC can be justified on the grounds that it would not be cost-effective for the lead department to acquire the equipment or cross-disciplinary expertise required for a particular activity (e.g. the mechanical, and electrical engineering and materials expertise required for certain biomedical projects). A strong case can also be made for use of an NRC lab for technology development useful to both a regulating department and the regulated industry. (Reference materials produced by the Atlantic Research Laboratory assist regulatory agencies such as Environment Canada and Fisheries and Oceans to administer the Ocean Dumping Control Act and also help industry comply with these regulations by assessing alternatives for dredging operations and mineral processing.) The rationale for continued, long-term involvement by NRC in certain other activities seems far less clear, however. For example, responsibility for certain environmental tests could be transferred to Fisheries and Oceans or Environment as soon as standards and procedures have been developed.

Projects are generally undertaken on the basis of: advice from various associate and advisory committees (which include representatives from lead departments), specific requests from other departments, or on the initiative of NRC researchers and directors. Overall policies have been developed in certain areas, including biotechnology and biomedical programs, and the relatively small Public Safety Project Office program, for which there are clearly-defined policies, roles, and funding arrangements. (The Program of Science and Technology in Support of Law Enforcement in Canada, Public Safety Project, provides for NRC technological support under RCMP program management and supplementary funding.) Generally speaking, however, NRC research objectives and activities have not been integrated sufficiently with the policies, priorities, and programs of the lead departments.

The "free" nature of most services -- provided through NRC's A-base -- complicates the problem still further since it provides no real incentive for the lead department to rationalize these services or take them into consideration in the development of sectoral policy. Problems can also arise in budget-reduction exercises when NRC cuts a service which it considers less critical in terms of its own priorities but which the lead policy department considers essential. A recent example is the reduction by NRC of dosimetry services considered essential by the Department of National Health and Welfare.

Alternatives to the present funding system are: (a) the use of a fee for service approach whereby the lead department would contract on an annual basis for specific services to be paid for through its own votes or (b) the use of the Public Safety Project Office approach whereby the lead department would be responsible for managing the program and for payment of any costs exceeding the amounts included in NRC's A-base for that purpose. Use of either or both of these alternatives would require adjustments to current NRC and departmental A-bases. These adjustments could be made by the Treasury Board.

ASSESSMENT

A strong case can be made for continued NRC involvement in research aimed at the solution of major economic and social problems. Scientific support should, however, be rationalized in relation to the policies and programs of lead federal departments in each of the major areas: health, forestry, agriculture, environment, and transportation. One way of doing this (other than simply "exhorting federal departments to co-ordinate their missions more rationally", as the Wright report suggests) would be to require NRC and various lead departments to develop a specific NRC "Program for Science and Technology in support of" each major policy area along Public Safety Project Office lines. These programs should involve assignment of program management and funding responsibilities, transfer of activities which could be done in a cost effective way by lead departments back to those departments, and priorization of specific projects within present (or possibly reduced) resource levels.

OPTIONS

The study team recommends to the Task Force that the government consider developing an NRC program for science and technology in support of each major policy area within current, or reduced, NRC-departmental resource levels. Memoranda of understanding between the NRC and principal policy departments to include clear role definitions, project priorization, and funding provisions.

NATIONAL COMPETENCE IN THE NATURAL SCIENCES AND ENGINEERING (National Research Council)

OBJECTIVES

To foster a milieu in Canada for the search for new scientific and technical knowledge and to develop and maintain a capability to respond rapidly and effectively to forthcoming needs for scientific expertise, engineering know-how, and in-depth analysis of problems in science and technology both nationally and internationally.

AUTHORITY

National Research Council Act; Appropriation Act.

BENEFICIARIES

The scientific community; the general public.

EXPENDITURES (millions of current dollars)

	82/83	83/84	84/85	85/86	86/87	87/88
Salaries	23.4	24.2	25.8	26.0	25.0	25.0
O&M	8.1	8.7	10.1	9.6	9.6	9.6
Capital	4.6	3.9	4.4	5.3	5.6	6.1
Grants & Contributions	-	-	0.1	0.04	0.06	0.03
TOTAL	38.1	36.8	40.4	40.9	40.3	40.7
Revenues	0.1	0.1	0.1	0.1	0.1	0.1
Person-Years	592	574	582	561	561	561

OBSERVATIONS

The standard of excellence set by participation in basic research by Canadian scientists is an important component in Canada's international status and prestige, provides Canadian scientists with access to new developments in the laboratories with other countries, and gives Canadian technology a credibility that is essential to successful participation in national and export markets.

The understanding gained through basic research is also essential for future applications in science and technology. Basic research in genetic engineering has, for example, led to the reconstruction of the gene for human proinsulin, considered a giant step forward towards the production of pure human insulin by bacterial agents. Work on nuclear magnetic resonance spectroscopy is helping to explain how drugs such as antibiotics and anaesthetics work in the human body.

NRC is a major performer along with universities of basic, or "core research". Its 1985-86 allocation for this activity totals $40.9 million dollars and 561 person-years.

Resource Allocation to Basic Research
(millions of dollars and person-years)

Disciplines/ Areas of Research	Actual 83/84		Forecast 84/85		Estimates 85/86	
	$	PYs	$	PYs	$	PYs
Physics	3.9	52	3.2	37	2.4	24
Chemistry	6.7	101	6.7	103	6.3	95
Astrophysics	9.2	151	8.5	133	8.7	133
Microstructural Sciences	-	-	1.3	16	1.3	16
Biological Sciences	10.7	166	12.5	174	14.2	186
Engineering Research	6.3	104	8.1	119	7.9	107
	36.7	574	40.4	582	40.9	561

There is considerable variation from one laboratory to another in the percentage of total resources allocated to basic research. In 1982-83, for example, the Hertzberg Institute for Astrophysics devoted 71 per cent of its resources to this activity as compared with 44 per cent in Chemistry, 29 per cent in Physics, and 4 per cent in the Centre for Space Science.

The percentage of total NRC resources allocated to "basic and exploratory research" has been declining steadily since 1976-77, largely due to increased emphasis on research in direct support of industrial innovation. The 1985-86 allocation for this activity of $40.9 million represents only 8.4 per cent of the total NRC budget, as compared with 15 per cent (or $17.1 million) in 1976-77. In 1975-76,

basic research accounted for 28.5 per cent (or 659) of the person-years under NRC's Scientific and Industrial Research Program; this percentage declined to 18.7 per cent in 1979-80 and 17 per cent (574 person-years) in 1983-84.

Budgetary cuts for 1985-86 totalled 41 person-years and $2.9 million and involved: x-rays and nuclear radiation, high pressure chemistry, and manufacturing technology.

Although some concerns have been raised about the adequacy of present funding for basic research ("too much" or "too little"), most commentators felt that there are other more pressing issues, notably: "micro-management" (Wright report); the lack of adequate, long-term support for researchers who have the potential to achieve world-class excellence; the lack of coordination of funding for basic research between universities (NSERC, NRC, SSHRC grants) and federal laboratories and the lack of input from industry concerning "major gaps" in the knowledge required for applied research.

Gaps in fundamental knowledge available to industry present serious problems because of: (a) a growing trend on the part of certain countries such as the U.S. to restrict access to leading-edge technology developed in their own countries, and (b) the lack of active involvement of Canadian industry in identifying and finding solutions to long-term, cross-company problems. This aspect of NRC's "national competence" research is discussed in the INDL note (NRC-106).

OECD figures for public R&D funding for "Advancement of Knowledge" are as follows (in dollars per capita for 1981):

Portugal - 2	United States - 16	Finland - 24
Greece - 3	Denmark - 17	Canada - 28
Ireland - 7	Italy - 17	Japan - 29
New Zealand - 9	Belgium - 18	U.K. - 30
Australia - 32	France - 32	Germany - 55
Netherlands - 47	Switzerland - 48	Sweden - 55

ASSESSMENT

The creation of a climate in support of curiosity-driven research has long been considered one of the marks -- and primary benefits -- of living in an advanced society.

Continued federal support for this activity is critical if Canada is to have sufficient national competence to keep up with international scientific and technological developments. The present overall level of support is, in fact, somewhat lower than than available in other countries such as Sweden, the U.K. and Australia, though higher than the U.S. and the OECD median ($24 per capita).

The understanding gained through basic research is also essential for future industrial applications. The short-term concerns of industry often point to major gaps in fundamental knowledge which will have to be dealt with if long-term, practical solutions are to be found. In general, industry does very little fundamental research of a long-term nature; this type of research is generally done in government or university laboratories.

The present level of resources for basic research could (notwithstanding the importance of this activity) be raised, lowered, or redistributed in a fairly arbitrary way. Resources could, for example, be redistributed for areas, such as astronomy and high energy physics, where the "pay-off" is less immediate or obvious to areas more closely linked to applied research. Such adjustments should be made with due deliberation, however, since they could lead to the loss and eventual shortage of specialists in certain areas, declining international standing, the closing of "windows" to technology developed elsewhere and, above all, the loss of a valuable cultural and educational investment.

There is considerable evidence that the quality of basic research could be improved significantly without the injection of additional resources, if curiosity-driven research were subjected to a far more stringent peer review process. Available resources could be redirected in support of thoses rare and exceptional researchers who are capable, in the judgment of their peers, of makind outstanding international contributions. This may mean paying more attention to some sectors and even ignoring others where there are no outstanding researchers. One idea would be for NRC to adopt a "granting" system vis-à-vis its own labs which would be similar to that used by NSERC for the support of university research. A pool of money and person-years could be established from current resources and reallocated at the total discretion of Council towards supporting exceptional NRC researchers. A more coordinated peer review process involving NRC and NSERC could also be set up so as

to ensure an appropriate distribution of total available resources between univeristy and federal laboratories. Basic research which is more closely related to industrial needs is discussed in the separate note in the INDL program (NRC-106).

OPTIONS

The study team recommends to the Task Force that the government consider requesting the National Research Council to:

a. develop a plan to strengthen the peer review process for basic, curiosity-driven research so as to ensure that available resources are used to provide full support to those rare and exceptional (NRC) researchers who are capable, in the judgment of their peers, of making outstanding international contributions; and
b. develop with the President of NSERC a coordinated peer review process relative to both university and federal researchers.

RESEARCH IN SUPPORT OF PROBLEMS OF ECONOMIC AND SOCIAL IMPORTANCE: BUILDING AND CONSTRUCTION (National Research Council)

OBJECTIVES

To provide research and advisory services which will help to reduce construction and operating costs while improving standards of quality, health, and structural safety.

AUTHORITY

Appropriation Act

DESCRIPTION

The Division of Building Research includes: central laboratory facilities in Ottawa, a Fire Research Station in Almonte, and regional field stations in Saskatoon, Halifax, and Vancouver.

Activities include: creating and maintaining a "knowledge system" for the benefit of the construction industry; carrying out research on problems which are peculiar to Canada or which have not received adequate attention elsewhere; assisting with the coordination of building research activities such as seminars and conferences; providing national testing facilities where required; assisting in the development of national testing methods, codes, and standards such as the National Building Code and the National Fire Code; promoting the use of new and existing technology by the construction industry (Canadian Building Digests).

BENEFICIARIES

The general public benefits from cost reductions and improvements in quality and safety derived from construction R&D.

DBR head office received 408 written technical enquiries and approximately 2,500 telephone enquiries in 1984 (excluding Codes and Standards and UFFI enquiries). Of the written enquiries, 35 per cent were from governments, 33 per cent from individuals, 17 per cent from designers, and 15 per cent from industry. In the codes and standards area, DBR received 2,000 enquiries, of which roughly 50-55 per cent involved governments and 40-45 per cent involved designers.

EXPENDITURES (millions of dollars)

	83/84	84/85	85/86	86/87	87/88
Person Years	150	146	172	172	172
Operating Expenses					
Salaries	6.1	6.2	7.7	7.7	7.7
O&M	1.8	2.6	2.8	2.8	2.8
Capital	0.7	1.0	1.2	1.2	1.2
TOTAL	8.6	9.8	11.7	11.7	11.7

OBSERVATIONS

Industry profile: The construction industry is highly fragmented, involving owners, designers, manufacturers, suppliers, contractors, and sub-contractors. In 1983, construction accounted for more than 16 per cent of GNP (as compared with about 8 per cent in the U.S.A.), or about $56 billion dollars. Roughly 45 per cent was spent on heavy engineering construction, 30 per cent on residential construction, and 25 per cent on industrial, commercial, and institutional buildings.

Trends: The Construction Industry Development Council predicts that the average size of construction firms in the residential sector will continue to decline, mainly because of the decreasing importance of speculative construction and increasing requirements for renovation and conversion activities. On the other hand, industrial and engineering construction is expected to be undertaken more and more by large firms and joint ventures bringing together contractors of international stature. Both of these trends will increase the need for "leading-edge process technology" and "effective commercial intelligence systems".

Construction-related R&D is difficult to pin down, in large measure because of the lack of reliable statistics. It is considered, however, to be quite low -- between 0.1 and 0.2 per cent of the value of annual construction.

Total Estimated Intramural Construction R&D Expenditures (millions of dollars)

Yr	Fed. Gov't $	%	Industry $	%	Prov. Gov'ts $	%	Univ. $	%	Total Amount	Total Const.$ (1971)
67	10.5	57	4.4	24	0.7	4	2.8	15	18.4	21.5
73	15.0	44	12.9	38	0.5	2	4.7	14	33.9	29.6
76	20.2	48	15.1	36	1.2	3	5.3	13	42.1	26.3
80	25.0	48							52.4	23.8

Industry involvement: In the private sector, the main performers of construction R&D are large companies and associations with a major stake in reducing capital, operating, and maintenance costs (such as the Canadian Electrical Association) and manufacturers associations involved in the highly competitive steel, wood, concrete, and cement markets. Generally speaking, however, there are very limited links between this R&D community and the owners, designers, and builders who could be among the primary beneficiaries of R&D but who have very little highly visible incentive to develop or apply new technology on an individual basis.

Provincial and university involvement: Some (but not all) of the provincial governments have construction R&D programs which are primarily carried out by power utilities; ministries of transportation, energy, housing and environment; and research councils (notably, the Saskatchewan and Alberta Research councils and the Ontario Research Foundation). Major university contributors to construction R&D include the École Polytechnique's Northern Studies Institute, McGill University, the Centre for Building Studies at Concordia, and the Universities of Toronto and Waterloo.

Federal involvement is highly fragmented, with a large number of departments responsible for intramural research, for funding of outside performers, or both. NRC's Division of Building Research is the main performer of intramural research. Construction R&D also takes place, however, in other NRC laboratories, at Energy, Mines and Resources, Transport Canada, and CMHC (which has a broad mandate for residential R&D). To this, must be added contributions available through NSERC, SSCHRC, NRC'S IRAP-PILP programs, and DRIE.

The lack of well-defined roles, policies, and data means that any coordination which does occur happens largely through informal contacts and the activities of the two major advisory boards: the Construction Industry Development Council (which is supported through DRIE and focusses on construction management and labour interests) and the Canadian Committee on Building Research (an NRC associate committee which is oriented toward building science and technology). Recent studies have advocated solutions ranging from role clarification and merging of committees to the creation of a separate department of construction.

Division of Building Research

DBR provides technical and administrative support for the development of national codes and standards. The Construction Industry Development Council strongly supports work in this area because of the continuing need to update these codes to reflect changes in technology, as well as social and economic factors. The Council also points out that the lack of precise application of the National Building Code among the provinces adds to the planning and performance costs of contractors and others attempting to operate across provincial boundaries. Support for NRC's role in this area is based on the need for a central access point for the technological information on which these codes are based as well as on the need to maintain an objective, "arm's length" relationship between the national coordinator and various regulating or regulated bodies. Possibilities for increasing revenues from governments and industry through the sale of technological data ought to be further explored.

Roughly 65 per cent of DBR's activities involves research on problems which are peculiar to Canada or which have not received adequate attention elsewhere. Basic areas of research include: building materials, structures, and performance as well as energy, fire, geotechnical, noise, vibration and thermal problems. Specific projects are selected on the basis of advice received from NCR's Associate Committee on Building Research, the urgency of problems, or the long-term nature of required research. The division promotes joint work, through the use of associate researchers from industry or universities, and has also made limited use of outside contracts for specific tests or research projects. Projects are also contracted-in from

other government departments. (CMHC pays an annual "retainer" of $150,000 for which it received research support in 1983-84 valued at roughly $250,000.) There remain a number of major concerns, however, about the slow "take-up" of new and existing technology by smaller firms and the lack of appropriate industry involvement in funding and project selection.

Transfer of technology to small, regionally-based firms could be improved without additional federal resources through the integration of building-technology advice into the Field Advisory Service and the use of contribution arrangements with building specialists in federal, provincial, or association centres. Various aspects of this service could be revenue-generating. This could offset costs associated with contribution arrangements. The recent transfer of DBR to NRC's Industrial Development Office should facilitate this change.

Industry is generally considered insufficiently involved, both in terms of funding and the establishment of research priorities. One proposal put forward is that DBR should become the industry's institute, with industry fully responsible for management and funding. A modified form of this approach would apply the Forintek model. (In 1979, the federal government's Forest Products Laboratory was privatized as "Forintek". At the present time, the federal government provides about 60 per cent of the funds, with the rest coming from five provincial governments and major companies. Roughly two-thirds of Forintek's Board of Directors are from the private sector.) Factors which would suggest phasing-in of a modified approach include: the fragmentation of the building industry which involves a larger number of small companies than the forest product or the pulp and paper industries; difficulties experienced in other countries, notably Australia and Sweden, with full industry control of research in this area; and the need to provide objective, "outsider" support for code development. Development of specific proposals could take into account: an appropriate Board of Directors mix; use of revenue-dependent projects and person-years; implications for increased contracting-in and -out.

ASSESSMENT

A strong case can be made for active federal involvement in construction R&D. Much of the research currently being done would fall into categories classified in the Wright report as warranting major federal involvement, e.g. research in areas where the industry is too fragmented to undertake the necessary R&D and where the "pay-off is too small" or "too far down the road to attract private industry." DBR research also provides valuable technological support -- at arm's length -- for the development of national codes and standards. There is considerable evidence, however, that too great an assumption of direct responsibility by the federal government -- as seems to be the case at the present time -- will militate against appropriate industry involvement in research funding and priorization. It should be possible to transform DBR into a jointly-funded (federal-provincial- industrial) centre which would maximize industry involvement in funding and management while providing appropriately objective, "arm's length" advice in support of intergovernmental code and regulatory activities.

OPTIONS

The study team recommends to the Task Force that the government consider clarifying the total federal effort on building and construction research.

LABORATORY SUPPORT FOR INDUSTRIAL INNOVATION AND DEVELOPMENT (National Research Council)

OBJECTIVES

To support scientific and engineering research and development capability in Canadian industry; and

To contribute to meeting regional needs for R&D in science and technology in co-operation with federal and provincial organizations, universities and industry.

AUTHORITY

Appropriation Act.

DESCRIPTION

Unlike IRAP and PILP, the component identified as INDL does not exist as an organization, nor even as a centrally co-ordinated activity. For the purpose of program evaluation, INDL is defined as the sum of all activities and associated resources identified by NRC as dedicated to the support of industrial innovation and development through informal contacts and contracts. Examples of current projects include: work on aerospace metallic materials, inorganic semiconductors, PVT properties of liquids and vapours, optical coatings and filters.

BENEFICIARIES

Informal contacts were primarily with manufacturing companies (53 per cent) and companies situated in Ontario (55 per cent). In the case of contract work, approximately 45 per cent was with consulting firms, 30 per cent with manufacturing firms, and 18 per cent with firms doing R&D. Fifty-four per cent of the contracts were in Ontario, 14 per cent in Quebec, 10 per cent in B.C., and 22 per cent in other provinces.

EXPENDITURES (millions of current dollars)

	82-83	83-84	84-85	85-86	86-87	87-88
Salaries	22.8	26.7	33.0	34.2	32.0	32.6
Other O & M	10.6	12.1	23.8	15.0	15.0	14.4
Grants & Contributions	-	-	1.8	0.5	0.5	0.5
Capital	22.9	22.1	67.1	51.2	19.2	12.0
TOTAL	56.3	60.9	125.7	100.9	66.7	59.5
Revenues	-	-	1.3	1.3	1.4	1.7
Person Years	590	653	774	769	762	773

OBSERVATIONS

Client assessments were "almost unanimously positive (98 per cent). A detailed study of companies accounting for over 90 per cent of the benefitsrevealed that $66 million in realized revenues and cost savings and some 262 jobs could be credited to informal interactions with NRC. These companies also forecast $440 million in benefits over the next five years. The forecast results reported under the category of formal contracts include $600 million in earnings, 1,200 jobs to be created, and $300 million in expected export sales over the next five years. "These predictions, if confirmed, would indicate that the contracting-out program may be more successful than has been generally realized in terms of the economic and social gains it can produce" (1983 evaluation of INDL).

Client access: Informal interactions originated from a wide variety of sources but 64 per cent stemmed from knowing NRC personnel or through telephone enquiries or personal visits to NRC. Surveys attributed regional differences to: distance from NRC laboratories, the number of companies per province capable of interacting with NRC (manufacturing GDP), and lack of knowledge of NRC services and facilities. A survey of 160 companies not currently dealing with NRC indicated that many of these companies were not well informed about NRC services. Increased marketing (and the placement of IRAP advisors in provincial, private sector, and university centres located outside NRC lab areas) is expected to expand the current client base. More active marketing efforts may, however, be needed.

Support for industrial innovation and development is directed towards two different types of research:

a. Company and product-oriented research which generally leads to proprietary information and which is oriented towards product development and the application of new materials, processes, or manufacturing technology by a specific company. Support for this type of research is handled through informal contacts and through contribution programs such as IRAP and PILP. There are concerns, however, that too great an emphasis on this type of research (as compared with cross-company research) could lead to inefficiencies in federal support, e.g. to situations where the government could be funding the same type of development again and again, but with different companies.

b. Research directed towards filling major gaps in industrial knowledge and application. Because of the nature of proprietary information, this cross-company and cross-industry research is generally supported through a combination of intramural research and contracting-out. Concerns in this area include: the impact of an increasing trend in certain countries such as the U.S. to restrict access to technologies developed in their countries; the lack of adequate identification of key areas for gap-filling research; and inadequate contracting-out policies and funding.

In reviewing contribution, contracting-out, and intramural research programs directed towards these two types of applied research, the study team noted the following problems:

a. The need to identify key areas for cross-company research and individual company support. Differences in applications from one industry to the other (in advanced materials research, for example) suggest that it might be preferable to adopt an industry by industry approach to the identification of major gaps (aerospace, biomedical, electronic, etc.). The expertise available in NRC associate and advisory committees could be tapped for this purpose.

b. The need to achieve a better balance between company and project-specific support (through informal INDL contacts, IRAP, PILP, etc.) and research on fundamental cross-company and cross-industry problems (INDL contracts). This would most likely involve redistribution of funds from contributions and intramural research to contracted-out projects. (Contracting expenditures under INDL for 1983-84 totalled $5.3 million. Generally speaking, recently-established laboratories have more adequate funding provisions for contracts than the older labs.)

c. The need to develop better laboratory incentives: The peer review process functions well for the assessment of basic research; reliance on peer review may, however, be somewhat counterproductive when it comes to encouraging early identification and transfer of technology with potential commercial benefits. Incentives more directly related to the identification of commercially useful research are required: for example, making funds (and person years) available on a competitive basis among the various laboratories for specific industrial projects. Increasing direct exposure of NRC scientific staff to the industrial environment would also be beneficial. In 1983-84, approximately 430 visiting researchers worked in NRC laboratories. Traffic goes mainly one way, however. NRC could profitably consider programs to provide permanent NRC staff with opportunities to work in industrial laboratories.

d. The need to increase industry involvement in the selection, funding, and management of projects. Government laboratories in other countries, for example, obtain funds from (and perform work for) industry and other clients. In 1979, industry funded five per cent of government-performed R&D in Sweden, as compared with one per cent in Canada.

ASSESSMENT

Support provided by NRC under this activity is of significant benefit to industry. Benefits could be increased, however, by: (a) strengthening industry's involvement in the identification of key areas and in the selection, funding, and management of projects with

industrial implications; (b) introducing stronger incentives for NRC laboratories to explore the industrial possibilities of their research and to co-operate in joint projects and industry-government exchanges; and (c) developing a more appropriate balance between company-specific and cross-company research.

One alternative which could be explored involves changes in the structure of the Industrial Development Office to provide for a management board which would have strong industrial representation and which would be responsible for the identification of key areas (on the basis of proposals developed by various advisory and associate committees and within the context of overall government policy). This board would also be responsible for the allocation of resources to industry (through PILP and IRAP) and to NRC laboratories for industrial research projects (including contract funds for extramural research). This could involve the creation of a "pool" of funds and person years drawn from resources currently assigned to individual laboratories and existing contribution programs. Funds would then be reallocated to labs (as well as companies) on a competitive, project basis. Additional funds could also be obtained from industry (as is being done in other countries) via general contributions or "contracting-in" for specific projects.

OPTIONS

The study team recommends to the Task Force that the government consider making NRC's industrial research and contribution programs more responsive to industry by vesting allocation decisions in an Industrial Development Office which would have a management board with strong industrial representation.

This office would be responsible for:

- the selection of key areas (on the basis of input from various advisory and associate committees and within the context of overall government policy);

the selection and funding of specific projects proposed either by industry (through IRAP-PILP) or by NRC (through intramural and contracted-out research);

the administration of knowledge-transfer programs such as CISTI; and

the creation and management of interchange programs for scientific personnel in industry and federal laboratories.

NATIONAL FACILITIES
(National Research Council)

OBJECTIVES

Under the general objective "to meet Canadian needs for major facilities for science and engineering", the intended aims are:

to provide facilities to government and industry for scientific and engineering research;

to promote, encourage and provide an environment to facilitate scientific and engineering research; and

to provide added capability for R&D to meet national needs and priorities.

AUTHORITY

NRC is a departmental corporation, established by the National Research Council Act, and which reports to Parliament through the Minister of State for Science and Technology.

DESCRIPTION

There are presently 48 engineering and scientific facilities throughout Canada.

The engineering facilities are used by industry and governments in testing the design of models and prototypes and in confirming the performance of full-scale machines, systems and structures. Transportation equipment (aircraft, railway, ships and road vehicles) together with fixed and floating coastal and offshore structures account for most of the applications.

The scientific facilities are used to conduct fundamental research in physics, astrophysics and space science. These facilities provide specialized equipment and installations needed in the search for new knowledge and applied studies.

BENEFICIARIES

Various Federal government departments, Canadian industrial and scientific communities.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87
Operating Expenditures	19.3	24.1	25.3	22.1
Capital Expenditures*	35.2	33.3	23.5	21.3
TOTAL	54.5	57.4	48.8	43.4
Revenues	1.8	3.3	2.8	2.8
Person Years**	227	250	250	245

* Major expenditures — Institute of Marine Dynamics (Nfld.)

Space Science Program (Ont.)
Algonquin Radio Observatory (Ont.)

** 1/3 professional, 1/3 technical, 1/3 non-technical support.

OBSERVATIONS

The private/public utilization varies from 0/100 to 100/0. Facilities under the Division of Mechanical Engineering such as railway test facilities and the engine laboratory are mostly private oriented. Facilities under the Division of Physics and Herzberg Institute are mainly public or university oriented.

The engineering facilities account for 26 per cent of the person years and about 20 per cent of the operating costs. The scientific facilities account for the balances, 74 and 80 per cent respectively. This reflects the higher level of private participation in the engineering facilities.

Many facilities are needed to support standard setting or regulatory functions for various government departments -- e.g. aircraft and ship handling. No charges are made for this service.

Many facilities are operated by NRC because of the economy of scale and the confidentiality offered by a national facility. For example, the Railway Test Facilities are used by NRC for standard setting (10 per cent) but

mostly (90 per cent) by CPR, CNR, Bombardier and many small equipment manufacturers. Duplication of facilities is unwarranted and many individual companies could not afford to have their own. Likewise the Engine Laboratory is used by NRC for standards while Pratt & Whitney, G.E., Westinghouse and the auto industry use it for testing. Companies provide their own labour, material, supplies and must book times to use the facilities at their expense.

The facilities provide Canada with a window to the world to share facilities internationally.

For basic (pure) research, out of pocket costs are reimbursed by the user but no charges are made for the facility. Facility charges are made for applied research but full cost is not recovered.

New facilities are added when clients identify a need and NRC reviews and approves the addition. An advisory group is established to review the proposal and ensure the political, regional, environmental, international, financial, etc. aspects are all properly considered. The Institute of Marine Dynamics in Newfoundland is an excellent example of the process used to establish a world-class facility.

The normal annual review process which NRC follows to rationalize facilities and reallocate resources appears to be a little self-serving and could be tightened. This process has resulted in rationalization of activity at the positive ion accelerator and the electron linear accelerator facilities.

In February 1984, NRC approved a "Program Evaluation Framework" for all managed facilities. The assessment phase is June 1985 - August 1985 and the study phase is September 1985 - July 1986. Following this independent evaluation, NRC management will rationalize the facilities.

There are facilities in Canada that should probably be under NRC control because of both national and international implications -- Tokamak Fusion Reactor.

ASSESSMENT

Some of the applied research facilities could probably be privatized in full or in part and NRC could purchase its requirements from industry.

NRC should be able to recover a greater percentage of its costs from the users of the facilities. Present recovery of about 15 per cent could be increased to about 50 per cent.

NRC should have an ongoing and timely program to rationalize its facilities.

NRC should increase its basic research effort and reduce the applied research effort associated with operating the applied facilities and as such focus more on technology in Canada's best long term interest.

OPTIONS

The study team recommends to the Task Force that the government consider requesting the National Research Council to:

- rationalize each facility and to hold NRC management accountable for appropriate action.

- establish an ongoing program to re-evaluate each facility. This should be on a five year basis.

- establish a rate scale for each facility based on full commercial rates and all users, both private and public, should be charged on a time usage basis. The rates should be updated annually. This relates primarily to the applied research facilities as the scientific research facilities may be exempted for scientific research useage. This would add about $7 million to NRC's annual revenue for managed facilities. Since Treasury Board Regulations only allow NRC to charge incremental costs to other government departments, these Regulations would require change.

MAJOR FACILITIES MANAGED EXTERNALLY
(National Research Council)

OBJECTIVE

To carry out basic research in physics and astrophysics.

AUTHORITY

NRC is a departmental corporation, established by the National Research Council Act and reports to Parliament through the Minister of State for Science and Technology.

The facilities are operated under joint agreements of the federal government with the provinces, universities and foreign governments.

DESCRIPTION

There are two scientific facilities which receive funding from the federal government through NRC.

The Canada-France-Hawaii telescope (CFH), a jointly sponsored project of the two countries and the University of Hawaii, is located in Hawaii and is operated under a tripartite agreement with observation time being shared 44-44-12 per cent respectively.

The Tri-University Meson Facility (TRIUMF) is a world class centre for research in intermediate energy physics, located on the campus of the University of British Columbia and operated as a joint venture by the Universities of British Columbia, Victoria, Simon Fraser and Alberta. The unique cyclotron is used for research in nuclear physics, nuclear chemistry and medicine. It was founded in 1968 and sponsored by Atomic Energy of Canada. The responsibility for funding was transferred to NRC in 1976.

BENEFICIARIES

The international science community, the universities, and cancer patients.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87
Canada-France -Hawaii Telescope	2.4	2.2	2.3	2.2
Tri-University Meson Facility	23.2	25.5	26.7	28.0

These costs represent NRC's contribution and are net of funds received from outside sponsors -- e.g. the Canadian Cancer Society sponsors a $5-6 million program each year at TRIUMF. About 30 per cent of NRC's contribution to TRIUMF goes for capital expenditures to upgrade computers and facilities -- there are currently no expansions planned.

OBSERVATIONS

The CFH telescope which is owned 50/50 with France is located in one of the prime locations in the world.

The 5 year operating agreement comes up for renewal in July 1985. Any desire to dilute our interest would impact on France and the University of Hawaii.

The CFH telescope has at least a ten year life remaining. It will complement the new U.S. telescope being constructed in Hawaii. Other Canadian based telescopes are somewhat obsolete and may only be justified as teaching facilities.

The corporation which oversees the operation of the telescope is managed by a Board of Directors -- 4 appointed by NRC, 4 by France and 2 by the University of Hawaii. The Board is responsible for approving the operating and expense budgets.

Dominion Bridge built the CFH telescope and established a world-wide reputation which has been beneficial to Canada.

Of the three major intermediate energy accelerators in the world, (U.S.A., Switzerland and Canada), TRIUMF is unique in that it can operate with variable energy while the others operate with fixed energy. It is therefore widely used by physicists and chemists from the U.S., Europe and Japan.

The TRIUMF facility has a dedicated line linkage to the B.C. Hospital for cancer and brain scan equipment.

The TRIUMF Advisory Board oversees the project. Its 10 members represent NRC, AEC, Universities, Industry and the Cancer Institute of Canada. The day-to-day operations are controlled by the Board of Management.

ASSESSMENT

Except for the linkage to the B.C. Hospital, both facilities are basically dedicated to long-term research. As such they would be impossible to privatize as they could not attract the necessary financing from the private sector.

These facilities enable Canada to participate in the international scientific community.

OPTIONS

The study team recommends to the Task Force that the government consider continuing NRC's role in external facilities as part of Canada's contribution to international scientific research.

RESEARCH AND SCIENCES RELATED TO PHYSICAL STANDARDS
(National Research Council)

OBJECTIVE

To meet Canadian needs for physical standards in science and engineering.

AUTHORITY

National Research Council Act; Weights and Measures Act.

DESCRIPTION

Pursuant to its mandatory role in support of the Weights and Measures Act, NRC sets national measurement standards and provides various services in relation to these standards. The primary standards of time, mass, length, electrical resistance and voltage, temperature, and luminous intensity, as well as a large number of derived physical standards, are maintained by NRC's Division of Physics. Standards related to high voltage electricity and electromagnetics are maintained by the Divison of Electrical Engineering. Standards related to force and acceleration are maintained by the National Aeronautics Establishment while those related to fluid viscosity fall under the Division of Mechanical Engineering.

BENEFICIARIES

Canadian governments and their regulatory agencies; consumer and industrial organizations; universities and other scientific and technical communities; and the general public.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Operating Expenses					
Salaries	5.8	6.1	5.9	5.7	5.7
O & M	1.2	1.3	1.0	1.0	1.0
Capital	0.9	1.1	1.7	2.2	4.3
TOTAL	7.9	8.5	8.6	8.9	11.0
Person Years	142	135	121	121	121

Budgetary cuts for 1985-86 included $0.8 million and 16 person-years for dosimetry services.

OBSERVATIONS

Standards are maintained "as a key element in the national infrastructure required to ensure sufficient measuring accuracy in trade and commerce, manufacturing, health, occupational safety, and other components of the national economic and social system".

Work in the setting of standards is closely correlated with the work of other national standards laboratories around the world and with the Bureau international des poids et mesures (BIPM).

The level of effort required is governed by the need to keep pace with changes in measurement technologies (e.g. the international shift from celestial to atomic time) and to adapt primary standards to specific measurement needs, particularly in relation to the regulatory activities of other departments. For example, NRC is developing standards and testing methodology for sea water and deposits in support of work being done in the departments of Fisheries and Oceans and Environment.

Standards developed by NRC are sold at approximately 10 per cent of costs. Fees could be increased somewhat; however, attempts to recover full costs would run counter to the primary objective of ensuring appropriate industry standardization.

Calibration of metres and measuring instruments derives from these primary standards. Of the 379 calibrations and measurements performed by the Division of Physics in 1982, roughly 75 per cent was for industry, 18 per cent for government agencies, and 7 per cent for universities.

National standards laboratories in the U.S., U.K., and Australia have made periodic attempts to increase returns from their calibration activities and have arrived at similar conclusions. They regard incremental costs associated with calibration services as fully recoverable; costs associated with the development of calibration procedures as partially recoverable. Adoption of similar policies by NRC -- which is currently recovering some but not all incremental costs -- could improve cost-recovery.

Overall costs could also be reduced over the next three to four years by phasing out active involvement in certain sectors as soon as the basic standards and testing methodology have been developed. Responsibility for certain sea water tests (currently costing NRC about $1 million for development) could, for example, be turned over to the departments of Fisheries and Oceans or Environment or to private sector laboratories when appropriate standards and procedures have been developed.

Technology-transfer programs such as PILP could also continue to be used -- perhaps more actively -- to encourage the development of calibration and measurement capability in the private sector. (For example, a recent PILP contribution was instrumental in helping one Canadian firm become the world's leading supplier of instruments for the precise measurement of voltage, resistance, and current, on the basis of earlier electrical standards work done at NRC.)

ASSESSMENT

"Research and sciences related to physical standards" are essential if we are to maintain appropriate accuracy in the measurements used in all sectors of Canadian society: health, trade and commerce, manufacturing, occupational safety.... Present levels of activity could, however, be maintained at reduced cost by increasing calibration and measurement fees to cover all incremental (and where possible some overhead costs) and by phasing-out active involvement in certain sectors as soon as standards and procedures have been developed. Consideration could also be given to more active encouragement of technology-transfer through such industrial programs as IRAP and PILP.

OPTIONS

The study team recommends to the Task Force that the government consider maintaining this program at reduced cost to the Treasury by increasing fees for calibration and measurement services towards full cost-recovery and by phasing out selected activities over the next two to three years to lead departments or, where appropriate, to the private sector.

SCIENTIFIC AND TECHNICAL INFORMATION
(National Research Council)

OBJECTIVES

To promote and provide for the use of scientific and technical information by the people and governments of Canada.

AUTHORITY

A 1966 amendment to the NRC Act authorized NRC to operate a national science library and to sell scientific information, regardless of form.

DESCRIPTION

Publishes the Canadian Journals of Research (Biochemistry and Cell Biology, Botany, Chemistry, Civil Engineering, Earth Sciences, Forest Research, Genetics and Cytology, Microbiology, Physics, Physiology and Pharmacology, Zoology, Geotechnical journals).

Develops and maintains the national CISTI (Canada Institute for Scientific and Technical Information) collection of published and machine-readable scientific and technical information.

Provides information services through CAN/OLE (an on-line storage and retrieval system), CAN/SDI (an automated current awareness service), MEDLARS (direct links with U.S. Library of Medicine data bases), CAN/SND (machine readable collection of scientific numeric data and computer programs) and a computerized inventory of federally-funded research carried out in Canadian universities.

BENEFICIARIES

The number of requests received by CISTI increased from 153,140 in 1979-80 to 220,484 in 1982-83. The percentage of requests received from industry has increased steadily from 38 per cent in 1979-80 to 50 per cent in 1983 whereas the proportion of requests from governments and universities has declined from 38 to 30 per cent for government and from 24 to 20 per cent for universities.

While large companies occasionally request a literature search from CISTI'S reference section, most reference service clients are small or medium-sized firms. Industrial CAN/OLE and CAN/SDN clients also include a broad range of large firms (some able to use the CAN/OLE service via their own terminals).

The geographical breakdown of requests for document services shows a heavy concentration in Ontario. In 1983-84, document delivery services (CAN/DOC) received 5,009 orders from Ontario as compared with 1,360 from Québec, 147 from New Brunswick, and three from Newfoundland.

EXPENDITURES (millions of current dollars)

	82-83	**83-84**	**84-85**	**85-86**	**86-87**	**87-88**
Grants & Contributions	0.1	0.1	0.1	0.1	0.1	0.1
Operating Expenses						
Salaries	6.7	7.5	7.8	8.7	8.7	8.7
O & M	13.6	15.7	19.0	21.1	22.1	22.9
Other Expenditures	-	-	-	-	-	-
Revenues	3.3	3.7	4.1	6.0	6.5	6.5
Capital	0.2	0.2	0.2	0.2	0.1	0.1
Net Expenditures	17.2	19.8	22.3	24.1	24.5	25.3
Person-Years	235	240	245	251	251	252

OBSERVATIONS

The CISTI national collection currently holds some 2.5 million titles, 1.8 million reports on microfiche, and 24,000 current periodicals which it keeps up-to-date through acquisitions (1983-84 budget of $6.2 million), and exchange agreements with parallel organizations in other countries. The growth rate for acquisitions has been maintained at eight per cent per year since 1977-78, which is considered roughly proportional to the international growth rate of scientific and technical data bases.

Demand: CISTI is the largest lender in Canada; it handled 219,800 requests for loans and photocopies in 1983-84 as compared with 64,800 requests handled by the National Library. Demand for documents has increased at an average annual rate of 13 per cent during the past four years. Demand for the main types of computerized services (CAN/OLE, MEDLARS, CAN/SDI) has been increasing at an average annual rate of 26 per cent over the past five years.

Client access is being facilitated through links with the IRAP Field Advisory Services and various forms of electronic mail. CAN/OLE's document ordering facility enables a client who has searched a data base on CAN/OLE to select bibliographic records and to order documents directly from CISTI or from eleven alternate suppliers.

Productivity: In labour-intensive areas, such as loans and reprography, CISTI has increased the number of requests processed per person by 35 per cent since 1979-80 by streamlining procedures, working with users to upgrade quality of requests, and increasing the use of on-line systems for receiving and sorting requests. It is difficult to see what else CISTI could do to increase its per capita output further in the immediate future.

Cost recovery: Retrieval costs associated with CAN/OLE, CAN/SDI, and CAN/SND services are fully recovered. This is similar to the handling of information in hard copy, where the user is charged for the copying but not for the acquisition or storage of the original material. This approach is consistent with accepted North American practices; it does, however, differ from the practices of certain foreign institutions, such as the British Lending Library, which comes close to full cost recovery. Any changes to current practices should probably involve the National Library as well as NRC. Cost-recovery for reprography services could, however, be improved in the near future by CISTI.

Roughly 56 per cent of the costs of the Journals is recovered. It is felt that there is some scope for increased charges without unduly restricting access to technical and scientific information (in part because of the effect of the six and five program). In the case of the Journals, the problem of pricing is complicated by the fairly large subsidies given to comparable scientific journals published in other countries such as Holland, France, and Japan.

Contracting-out: Approximately 66 per cent of the costs of publishing the Journals are contracted out (e.g. printing, binding, translating, proofreading). Consideration was given in 1981 to publication of the Journals by the private sector. This possibility was rejected, however, on the grounds that the best publishing houses were not interested and that the benefits derived from NRC's ability to attract first-class volunteer editors

and contributors might be lost. This issue could be reconsidered at a later date. CISTI makes a more limited use of contracts. It has been suggested, however, that increased contracting-out of reprography and other labour-intensive services might improve cost-efficiency and free up more of NRC person years for the scientific, technological aspects of CISTI's work.

Deficiencies: Data which is not currently accessible through the CISTI information network, but which is extensively used in other countries (notably Japan), includes the technical information available in patent files.

A recent Economic Council Study suggests that a more effective patent information dissemination service could help to reduce the lag between the first world use of an innovation and its adoption by Canadian firms. (The average lag for the adoption by Canadian firms of new processes, most of which were developed abroad, is nine years and for new products seven years.) Consumer and Corporate Affairs is developing a $9 million proposal in this area (CCA-13). However, given the multi-disciplinary nature of the information contained in patents, there would be certain advantages to integrating a patent data base with those already included under CISTI. Costs of introducing such a system could also probably be significantly reduced if arrangements could be made, as is already being done with MEDLARS, to access U.S. data bases directly.

ASSESSMENT

CISTI provides a unique service by maintaining a national data base of scientific and technical information drawn from a wide variety of Canadian and foreign sources. Location of CISTI at NRC facilitates access to foreign technology through already well-established connections with parallel organizations in other countries. The recent expansion of IRAP's Field Advisory Services should also facilitate access, particularly on the part of smaller firms, to information contained in CISTI.

Increased contracting-out of CISTI activities and increases in cost-recovery could reduce costs and leave more scope for NRC staff to focus on the professional and

technological aspects of their work and, in particular, to improve linkages with technological data available from other countries. In this context, particular attention should be given to the development of proposals for the integration of Canadian and U.S. patent data into CISTI data bases.

OPTIONS

The study team recommends to the Task Force that the government consider:

- increasing cost-recovery and contracting-out of labour intensive activities in the Scientific and Technological Information program;

- integrating patent information (including direct linkages with U.S. patent data bases) into CISTI; and

- improving CISTI linkages with other sources of international technology.

NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL (NSERC)

OBJECTIVES

To promote and support the development and maintenance of research and the provision of highly qualified manpower in natural sciences and engineering.

AUTHORITY

Part III of the Government Organization (Scientific Activities) Act, 1976.

DESCRIPTION

NSERC performs six activities. It awards grants for: 1) research; 2) research infrastructure (equipment and facilities); 3) promoting collaboration between university researchers and Canadian industry (cooperative R&D, shared equipment and facilities, industrial research chairs, workshops, other); 4) selected areas for accelerating research development (francophone universities, small universities, forestry); 5) general research support (special grants to university presidents); and 6) research manpower (scholarships and awards to undergraduates, post-doctoral fellows and scientists).

BENEFICIARIES

Canadian students and researchers in natural sciences and engineering and the universities, laboratories and private industries that use their services.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86
Research Grants	$160.1	$177.5	$184.6
Research Infrastructure Grants	45.8	17.2	16.9
University-Industry Program	13.8	22.4	16.2
Developmental Grants	3.7	4.1	4.9
General Research Support	11.0	12.9	11.8
Research Manpower Awards	40.2	48.1	50.3
	$274.6	$282.2	$284.7
Person Years	97	138	148

OBSERVATIONS

An evaluation by Currie, Coopers and Lybrand of NSERC's Highly Qualified Manpower Program found that:

- NSERC grants are a major factor in increasing enrollments in science and engineering;
- 15 per cent of graduate students in sciences and engineering receive NSERC grants;
- 85 per cent of graduates supported by NSERC hold positions involved in R&D eight years after graduation;
- 82 per cent of these positions are in Canada;
- more than 95 per cent of departmental chairmen and university administrators thought that NSERC scholarships had been awarded to excellent students;
- NSERC grants have the effect of discriminating against small, less well known and Atlantic universities, and
- 98 per cent of R&D supervisors at companies surveyed thought that researchers who had studied under Industrial Research Fellowships were making good contributions to the R&D efforts of the company.

The evaluation did not attempt to determine what the effect on the quality and quantity of researchers would be without NSERC assistance.

ASSESSMENT

The private sector, university and public sector opinions solicited by the team members concerning the impacts of NSERC grants were highly favourable. Likewise, the management of NSERC was compared favourably to other research granting organizations.

With the exception of some minor overlap between the University-Industry Program and IRAP/PILP, there appears to be little duplication between NSERC activities and other government programs.

The supply and demand models for natural scientists and engineers developed by NSERC indicate that the supply of Canadian highly qualified researchers cannot be significantly increased through increased funding above NSERC's current A-base. Hence, major increases in NSERC's A-base would not seem to be appropriate.

Apparently, no one has developed a measure of the effect of grants to researchers on the supply of researchers. Little can be determined about the optimal level of NSERC grants until such a measure is developed.

The federal government provides major support for post secondary education through equalization payments and other grants. Since these grants are not formally tied to use in specific areas and cannot be controlled by the federal government after being disbursed to the provinces, some provinces have channeled funds intended for post secondary education into other uses. Specifically, funds intended to modernize university infrastructure and equipment have been directed to other uses, prompting universities to appeal to NSERC and others to fund capital used for teaching by claiming that the capital was needed for research projects. Moreover, provinces have resisted all federal attempts to tie funds designated for post secondary education to that objective. The optimal level of NSERC funding cannot be determined until this issue is resolved.

OPTIONS

It is the view of the study team that the level of NSERC funding should probably not be changed much in the short run.

However, it would be useful to develop a measure of the effectiveness of grants to researchers in the context of determining the appropriate funding level for NSERC.

SCIENCE COUNCIL OF CANADA (SCC)

OBJECTIVES

To assess Canada's scientific and technological requirements, to increase public awareness of these requirements and to advise the government on the best use of science and technology.

AUTHORITY

Science Council of Canada Act, 1966-67; amended in 1978.

DESCRIPTION

The SCC acts as a national science advisor to the government. It operates at arm's length from the government. The SCC encourages discussion concerning science and technology among industry, government and universities. It disseminates information based on studies undertaken on its own initiative to the general public.

BENEFICIARIES

Canadian businesses, scientists, the general public and the government.

EXPENDITURES (millions of current dollars)

	82-83	83-84	84-85	85-86	86-87
Expenditures	4.0	4.5	4.8	4.9	4.9
Person Years	67	67	68	68	68

(Revenues from sale of publications accrue to DSS.)

OBSERVATIONS

Most countries have three kinds of science policy institutions: university, industrial and other private associations; governmental advisory and decision agencies; and quasi-autonomous bodies like the Science Council which mediate between them. An entire UNESCO monograph is dedicated to listing bodies of the latter two types. It is

interesting that scientists in Canada have never, despite encouragement and public seed funding, been able to sustain an equivalent of the British Association or the AAAS in the United States.

The Science Council performs a think tank function similar to the Economic Council, the Institute for Research on Public Policy, the C.D. Howe, Niagara and Fraser Institutes, the Canadian Labour Market and Productivity Centre, and the new peace research institute all of which are Canadian responses to complex public policy problems where both independent thought and an ability to bridge regional, sectoral and political divisions are a necessary basis for informed, long-range policy choices. Assessing the Science Council's performance against these rivals/collaborators is beyond our mandate but we observe that the number of places that foster useful introspection on public policy are few and none except the Science Council focus on science and technology.

Even so, 68 person years seems like a lot, particularly since DSS takes care of marketing the major studies.

ASSESSMENT

In the study team's opinion the outputs of the Science Council over the years relating to industrial policy, technology, and R&D have been disappointing. The publications and seminars in business-related areas have been of varied quality, often lacking in balance and depth, and have not discernably affected either government decisions about science or industrial policy or private investment decisions. Recent activities in other areas, such as science education, have demonstrated an ability to involve provincial governments, universities, and the private sector in grappling with issues. The linkage to the world of federal policy remains weak, however.

That linkage may be weak because there has been nobody to talk to. Historically, MOSST has conspicuously failed to fulfill the two key roles of a science central agency -- to make coolly rational judgments about the performance and management of the vast and expensive in-house federal R&D effort, and to advise Cabinet on resource allocations.

It is entirely possible, however, that a rejuvenated MOSST could task the Science Council with critical inquiries in support of its central agency mandate which would take advantage of the Council's ability to synthesize information from all technologically literate quarters of Canadian society.

Both the Science Council and MOSST are at turning points, with new leaders conscious of the burden of disillusion inherited from the failures of the 1970s. Both entities are being closely watched to see whether the new directions will be fruitful. In about two years, there should be a broad re-evaluation of the whole of Canada's science policy apparatus.

OPTIONS

Some but not all of the objectives of the Science Council could be achieved by a voluntary, self-financed association representing Canadian scientists, the more so if its membership extended beyond the academic community. Likewise, another part of its objectives could be served by other think tanks, although none have any particular connection to the world of science and technology. These points, together with the question of the resources needed, should be the focus of an evaluation involving disinterested private parties in 1987-88. In the meantime, the study team recommends to the Task Force that the government consider focussing part of the Council's work on inquiries related to the government's management and investment responsibilities in science and technology.

OVERVIEW
SPACE PROGRAMS

Background

Canada was among the first countries to identify the potential value of space technology. The space age was born in October, 1957, with the launch of Sputnik, the first man-made satellite in the world. Only five years later, Canada became the third nation in space when Alouette I was launched.

During the intervening 20 years, Canada has carried on its space program with a succession of satellites such as the Isis, Anik and Hermes series and more recently, with the Brazilian satellites and the Canadarm in 1982. Canadians have capitalized on space opportunities to such an extent that the use of satellites for communications, broadcasting, remote sensing for resource management and surveillance, weather forecasting, search and rescue and navigation is now an integral part of daily life. This was accomplished through close collaboration among the government, the private sector, the scientific community and international organizations.

From its beginning to the early 1970s our space activities were driven by one major application -- communications -- and the government leadership and management of successive programs was left to the Department of Communications. Now, there are no fewer than nine government departments interested in space technology to meet a wide range of requirements. Furthermore, the scope and complexity of the program has increased dramatically. Because there are now many more possible applications, it is becoming more and more difficult to choose projects wisely and establish priorities amongst departmental proposals.

To enhance coordination among all the departments involved in space, Cabinet established in 1969 the Interdepartmental Committee on Space (ICS) under the responsibility of the Minister of Communications with the following duties:

to make recommendations concerning the optimum use of resources and the coordination of space activities;

to consider policy for space and to formulate and recommend appropriate plans and proposals; and

to recommend co-operation in the space activities of foreign nations.

In 1980, the Prime Minister transferred responsibility for the ICS to the Minister of State for Science and Technology and assigned to him the responsibility for space research and development policy and for the co-ordination of space activities among government departments and agencies. Given this lead role, MOSST prepared integrated Space Plans in 1981, 1982 and 1984. These plans were the only mechanisms for departments to obtain funding for their new space projects -- e.g. all of the funds so far approved for MSAT, RadarSAT, LSAT, and others, were obtained via the Space Plans.

Environment for Space in Canada

The past and future success of the space industry is closely associated with extensive government financial support. High risk, long pay-back periods and subsidized foreign competition preclude independent operation by the private sector for the foreseeable future.

Over the last ten years, government space expenditures have increased constantly to a total of $160 million in 1984-85. During the same period, industry sales have increased to a total of $300 million with 70 per cent of salesexported, admittedly at a high cost to Canadian taxpayers. For example, our participation in the LSAT program returns approximately 60¢ worth of exports for every dollar of contribution to the program.

We are the world's largest per capita users of space, but Canada's program is modest in international terms: national space expenditures as a percentage of GNP shows Canada to be eighth on the list of space nations, between Italy and Belgium. The space industry in Canada operates coast to coast and is 90 per cent Canadian owned.

Departmental projections indicate a demand for additional funds that would double the total space allocation over the next four years to more than $300 million per year if the government were to proceed with the operations phases of MSAT and RadarSAT and the initial phase of Space Station.

The Problem

For Canada to continue as a leading space nation, improvements in the management of our space program are necessary to provide the strategic leadership essential in the present environment. The Committee approach cannot provide the strategic leadership and authority to manage the program as a whole. Industry and the science community have expressed concern over the years about this state of affairs for the following reasons:

the something-for-everyone characteristic of a committee makes it almost impossible to establish priorities and to make the program choices required in a period of restraint. These choices must be made from among a number of large programs, each sponsored by a different department or agency;

a committee cannot significantly re-allocate resources either within or between departments in response to changing conditions;

a committee cannot readily provide consistency in our international and industrial relations. In short, Canada's space program is fragmented, lacks strong, central management and is funded for the short-term only. This makes long-term planning ineffective and creates an atmosphere of uncertainty, hindering private sector investment in space.

The Space Plan is little more than a shopping list of ambitious projects and does not embody a strategy of giving priority to those projects yielding the highest economic return. Further, the Plan leaves many strategic aspects of space policy and programs unaddressed. For example, a project approach does not answer the fundamental question of whether space should remain a high priority sector for government investment and if so, what niches offer the best opportunities. Ministers are not given a framework which allows them to weigh the benefits of the proposed investments in the form of a specific project or industrial financial support program against comparable expenditures in other high technology industrial sectors.

Finally, our international partners are placing increased emphasis on the commercialization of space, making effective links between government and industry in Canada essential to the conclusion of international agreements. They are also intensifying their demands for higher levels of participation, restricting access to their technology, and expecting a commitment to their priorities.

Options

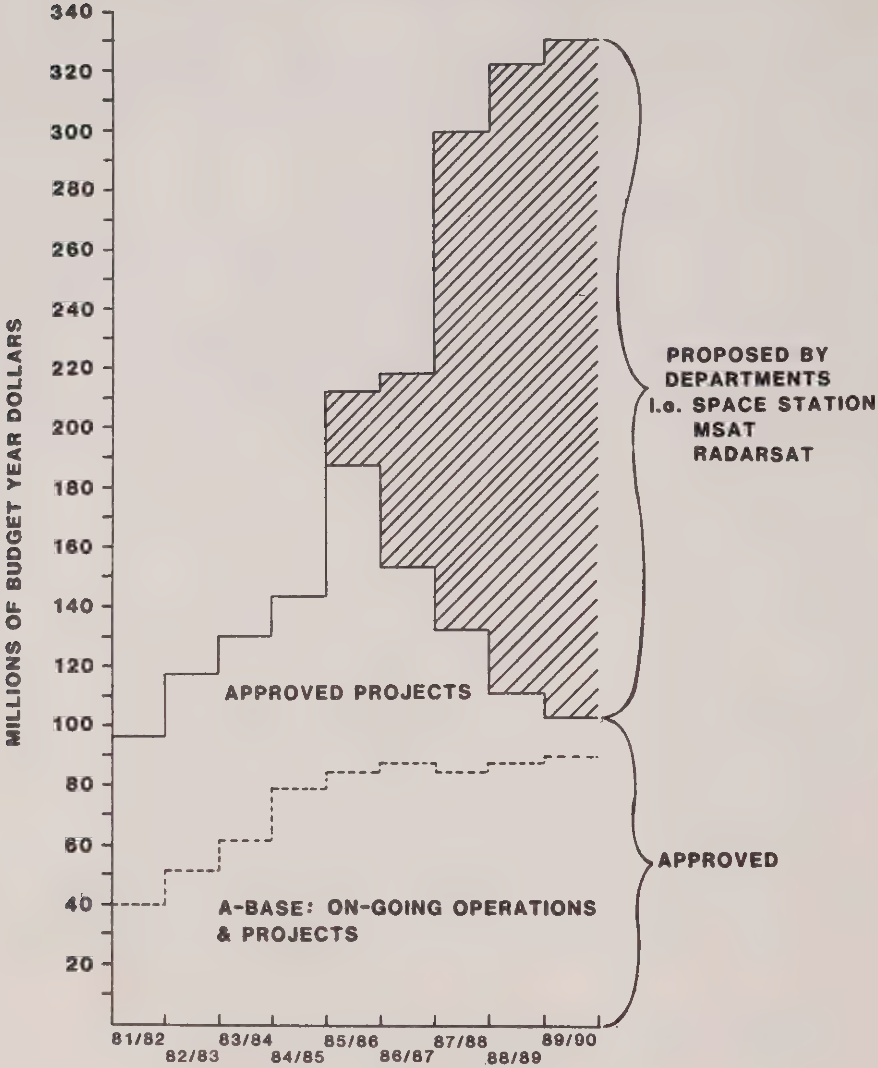
There is little question that funding the full suite of proposed projects and programs does not make much sense under the current financial circumstances of the Government. Even if this were not the case, it must be recognized that without a military program such as that of the U.S. which fosters American satellite manufacturers, Canadian industry will not have the capability to economically manufacture a complete satellite system. However, the skills and knowledge that the Canadian industry has developed over the past 20 years, particularly in the fields of communications, remote sensing and space technology such as the Canadarm, should be exploited fully by identifying lucrative niches. This could be done, for example, though a sharing agreement with the U.S.A. on programs such as their mobile satellite communication project where we could concentrate our efforts and resources on the ground stations instead of developing our own complete system.

Canada's decentralized approach to space program management is confusing to its international partners and customers, who must deal with several different departments. This is damaging to Canada's image in the world community and leads to ineffective utilization of scarce financial resources with respect to our collaboration in international undertakings. Therefore, if we want to improve our effectiveness in international ventures either at the collaboration or commercialization level, Canada must have one single intervening party.

Space is a high-cost, high-risk, competitive business that requires strong management and long-term planning. Our present successes are based on decisions made a decade ago, when the environment was much simpler and our national requirements were concentrated on a unique application. If Canada is to maintain its leadership, it is essential that a complete reorganization of its management of the space program be undertaken immediately and that the defence requirements be integrated with the program which is not presently the case.

It is the view of the study team that the overall management responsibility for the Canadian Space Program, i.e., strategic leadership, long-term planning and control of expenditures, should be given to a single organization under the responsibility of one Minister supported by a strong management team with expertise in technology, economics, marketing and military requirements and a mixed advisory committee made up of private and public sector representatives that would play a very active role in planning the Canadian space program. This does not suggest a NASA-style organization which concerns itself strictly with technology development. On the contrary, the Canadian organization must formulate space policies, plan and execute development projects with the private sector for the purpose of commercial exploitation rather than technology development. This could be accomplished with a minimum of hiring by consolidating some of the resources currently engaged in space efforts in government departments, agencies and laboratories.

SPACE PROGRAM EXPENDITURES
(APPROVED & PROPOSED AS AT DEC. 1984)



DEVELOPMENT OF SPACE SUBSYSTEMS AND COMPONENTS BY INDUSTRY

OBJECTIVE

To advance Canada's research in the areas of telecommunications, space and information science and technology.

AUTHORITY

Appropriation Act.

DESCRIPTION

The Development of Space Subsystems & Components Program (DSSC) was initiated in 1976 to encourage the Canadian space industry to undertakeresearch work that would lead to the design and development of subsystems, components, and processes for future satellite communications systems.

The program is an adjunct to the Contracting-Out Policy and provides a vehicle for buying R&D from the Canadian space industry. It consists entirely of contracts -- about 15 annually since the program was introduced.

The projects funded under DSSC can, in principle, originate with any organization. In practice, they have come from industry in the form of unsolicited proposals or originated within DOC, mainly in the Communications Research Centre. Where DSSC is the only source of funds, full funding is permitted.

BENEFICIARIES

Some 30 Canadian companies have benefited from the program over the years and amongst the better known are: Spar Industries, COM DEV Ltd., Canadian Astronautics, SED Systems, and Miller Communications Systems.

EXPENDITURES* (millions of current dollars)

	1983-84	**1984-85**	**1985-86**
Salaries and Wages	--	--	--
Other O & M	2.3	3.0	3.0
Grants and Contributions	--	--	--
TOTAL	2.3	3.0	3.0
Person Years	0.5	0.5	0.5

* Program to sunset in 1985-86.

ASSESSMENT

DSSC supports research activities in a high technology area having limited markets. On average, the program funds approximately 70 per cent of the cost of a given contract. The remaining portion is financed through other government programs such as the Unsolicited Proposals Program and, occasionally, from the contracting firm itself. Most of the recipient companies are relatively small and have limited funds available to undertake R&D on their own.

An evaluation, performed by the Bureau of Management Consulting in 1983, concluded that the program was consistent with the stated objective.

The program is one element of the government's Space Plan coordinated by MOSST. The plan is currently under review in preparation for presentation to Ministers early in 1985.

OPTIONS

The study team is of the view that these research activities could be financed through other government programs such as NRC's IRAP, DRIE's IRDP or DIPP.

DAVID FLORIDA LABORATORY (DFL)
(Department of Communications)

OBJECTIVES

The objective of the David Florida Laboratory program is twofold:

1. to provide and operate a national facility for the environmental testing and integration of spacecraft and spacecraft components with equal access offered to all Canadian aerospace companies; and

2. to support the government's policy of developing in Canada a prime contractor capable of satisfying domestic satellite communications needs and of bidding competitively in the international marketplace.

AUTHORITY

Cabinet 1978

DESCRIPTION

This national laboratory operates extensive facilities for the assembly, interpretation, and environmental and functional testing of spacecraft, spacecraft components and communication systems. The facilities include thermal vacuum chambers of varying sizes, electrodynamic shakers for vibration testing, and two echo-free chambers. The laboratory is located at Shirley Bay, west of Ottawa.

Although most of the DFL support provided to date has been in aid of spacecraft level programs, many smaller companies have been turning to the DFL for environmental testing of high technology products destined for the export market. Over 30 companies availed themselves of the DFL support during the first nine months of 1984-1985.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87
Salaries and Wages	1.7	1.7	1.8	1.8
Other O&M	1.7	1.7	1.7	1.7
Grants & Contrib.	-	-	-	-
Capital	0.9	2.5	4.8	0.9
TOTAL	4.3	5.9	8.3	4.4
Revenue (Lab fees)	0.4	0.8	1.2	2.5
Person Years	52	50	51	51

BENEFICIARIES

The beneficiaries belong to the following groups:

Canadian space industry (eg. Spar Aerospace, COM DEV, Canadian Astronautics, SED Systems)

Canadian telecommunications industry (eg. General Instrument of Canada, Canadian Marconi, Mitel)

Federal government departments (eg. DOC, DND, NRC, EMR)

The provision of these services has enabled the Canadian space industry to secure contracts for complete space systems and components. The major examples are the Remote Manipulator system for the space shuttle, ANIK-D for Telesat Canada and Brazilsat -- two communications satellites to be delivered to Brazil in 1985.

The benefits of the DFL facility have already been partially realized through its contribution to these projects for which Spar was awarded the firm contracts. It is anticipated that the demand for this service will continue to grow in line with the need for satellites and satellite technology.

ASSESSMENT

The DFL is a world class testing laboratory which is unique in Canada and highly regarded internationally. It will continue to have a strong impact on the development of a healthy Canadian aerospace industry through its contribution to the development of competitive satellite systems and proprietary products for both domestic and

international uses. Indirectly, it can contribute to increased employment opportunities in theaerospace research and development and manufacturing sectors.

The main rationale for the DFL is DOC's policy of supporting the development of a Canadian satellite prime contractor. However, it is unlikely that prime contenders will be able to achieve this status without continuing government support in various forms including the DFL facility.

The combined effects of government decisions to waive laboratory fees and the six and five program have placed the DFL in a loss position by about $3 million per year. A revision of the fee schedule currently underway is designed to achieve full recovery of the direct costs of operating the facility within two years.

OPTIONS

In view of existing government policy regarding the aerospace industry, it appears that the DFL serves an essential service in helping the industry to remain competitive. All foreign governments involved in space activities provide similar facilities to their aerospace industries at either no cost or for a nominal fee.

Full cost recovery has not been achieved largely because of concessions made to Spar in its efforts to secure international contracts. Such assistance should be specifically recorded so that the apparently unsatisfactory financial results of the facility are not attributed to management performance and government assistance to the industry is reflected accurately.

Should the Canadian space program become the responsibility of a single government department, the study team recommends to the Task Force that the government consider transferring this facility to the department.

OFFICE COMMUNICATIONS SYSTEMS PROGRAM
(Department of Communications)

OBJECTIVES

To promote the development of an industrial capability in Canada for the supply of integrated electronic office systems to domestic and world markets.

To evaluate the social, behavioural and economic implications of office automation.

To inform the public and promote Canadian systems.

DESCRIPTION

The Office Communications Systems (OCS) Program is a federal industrial initiative administered by the Department of Communications and designed to stimulate the development of integrated electronic office systems. The program was designed to deal with the rapidly merging technologies of micro-electronics, high-speed communications and information management systems that are transforming the modern office.

The main trust of the program is to provide Canadian-based companies with the opportunity to field-test new products and services in selected government departments prior to their commercial introduction. In addition, the program's mandate calls for research on the social, behavioural and employment impacts of office automation and the promotion of public awareness of such systems and their impacts.

The initial phase of the OCS Program was launched in 1980 with a budget of $2.5 million to test the feasibility of using field trials as a vehicle for demonstrating the Canadian technology.

In 1982, Cabinet approved phase II of the program over the period 1982-85 with a budget of $12 million to undertake the field trials and to conduct parallel research into the social and behavioural aspects of the technology, as well as a public awareness campaign.

BENEFICIARIES

Five prime contractors namely Bell Northern Research, OCRA Communications Inc., Bytec-Comterm Ltd., Systemhouse Ltd. and Officesmiths Inc. and a limited number of subcontractors were the major beneficiaries of this program. In fact, the program provided these companies with an opportunity to use field trials within five government departments to demonstrate particular OCS strategies and to develop and refine products, systems and methodologies to meet future needs of the government and the market at large.

EXPENDITURES (millions of current dollars)

	83/84	84/85*
Salaries and Wages	.52	.45
Other O & M	4.80	3.73
Grants & Contrib.	-	-
TOTAL	5.32	4.18
Person years	12	10

* This is a sunset program due to be completed on March 31, 1985.

OBSERVATIONS

An impact assessment of the five integrated systems is currently being completed and it is anticipated that it will provide the Canadian government information that will assist in future procurement decisions and policy development in the areas of social and behavioural implications.

ASSESSMENT

Office automation will come about through the integration of three separate technologies; telecommunications, data processing and office equipment. What was judged to be needed was the provision of seed funding to motivate Canadian companies to push toward integration and to demonstrate through field trials that they can supply world competitive integrated-electronic office systems. However, in view of the manufacturing trends world-wide, it is doubtful that Canadian companies can do better than develop and manufacture some components, particularly in the telecommunications field that will eventually be included in these integrated systems.

However, it was alarming to note that the valuable knowledge acquired since the introduction of this program has not yet been formally utilized to guide the government in its procurement of office systems which currently exceeds $500 million annually. In particular, the government should develop comprehensive system standards and specifications for performance and compatibility and implement a review or consultation mechanism within the procurement process to prevent costly mistakes before individual departmental system implementation becomes widespread throughout the government.

OPTIONS

The study team recommends to the Task Force that the government consider discontinuing this program; however, every possible effort should be made to transfer the knowledge acquired since 1980 to whatever organization might be identified to carry out this consultative responsibility.

MOBILE SATELLITE PROGRAM (MSAT)
(Department of Communications)

OBJECTIVES

The primary objective of the MSAT Program is to foster the development of new mobile telecommunications services in Canada. In particular, the program is aimed at satisfying national needs for improved public and government mobile communications to under-served areas of Canada, including resource development activities in remote areas. A further objective is to stimulate the development of Canadian space system technology in the private sector.

DESCRIPTION

In September 1980, Cabinet approved a program of studies to be undertaken over two years at a cost of $2.2 million to explore the use of satellites to improve mobile communications in Canada, and to define concepts and plans for a demonstration communications satellite system (MSAT) for mobile users. Twenty-three contracts were awarded to 16 Canadian companies to carry out these "Phase A" concept feasibility studies. Results of this initial phase indicated technical feasibility, a substantial market for satellite-assisted mobile communication services, significant user benefits and indications that a commercial system following the MSAT demonstration system would be economically viable.

In December 1981, Cabinet approved the project definition Phase (Phase B) of the MSAT Program at a cost of $17.4 million and included a comprehensive further examination of the market, commercial viability, socio-economic benefits, needed technology, policies, cooperative management, and costs to implement the MSAT system in Canada.

At the end of Phase A, the cost to complete the demonstration project was estimated to be $385 million in 1982 dollars. Because of this high cost estimate, DOC was mandated, as part of Phase B, to seek co-operative arrangements with domestic and international partners to share the financial burden. Accordingly, DOC negotiated and signed an Arrangement with NASA in 1983 for cooperation on a mobile-satellite program which is also being undertaken in the U.S. Under this Arrangement it is planned that Telesat and a U.S. Carrier, yet to be selected, would be supported

by DOC and NASA respectively to implement a commercial MSAT system serving Canada and the US as a first generation system, instead of the government demonstration system originally envisaged. This modified scenario offers a number of advantages such as: shared non-recurring expenses and service back-up arrangements and earlier involvement of the private sector.

DOC and Telesat negotiated and signed a Memorandum of Understanding in 1984 which defines the mutual MSAT objectives of DOC and Telesat, and respective roles and responsibilities foreseen to the end of Phase B and through implementation and operations phases.

In 1983, Cabinet approved an MSAT Bridging Phase (Phase B/C) at a cost of $3.9 million raising the federal government's financial commitment to the program to $23.5 million. This phase is required to achieve the transfer of program lead from government to industry and should be completed by the end of 1985-86.

On the basis of the encouraging conclusion reached under Phase B, Cabinet will be presented in the near future with a recommendation to undertake the program implementation and operations Phases C/D/E at a cost of approximately $175 million over the ten year period 1985-86 to 1994-95 with the bulk of the investment -- $143 million -- spread almost equally between 1987-88 and 1990-91.

BENEFICIARIES

The MSAT Program will provide social, economic and technological benefits. The recipients of these benefits would be the user agencies and industries, the public being served, the manufacturing industry, the government and particularly user departments such as RCMP, DOT, EMR, DFO, INA and possibly DND.

EXPENDITURES* (millions of current dollars)

CURRENT BUDGET FOR PROJECT DEFINITION AND BRIDGING PHASES

	83-84	84-85	85-86
Salaries and wages	0.4	0.4	0.3
Other O & M	8.8	6.9	0.7
Grants and Contributions	-	-	-
TOTAL	9.2	7.3	1.0
Person years	10	10	7

10 YEAR BUDGET FOR PROGRAM IMPLEMENTATION AND OPERATIONS PHASES C/D/E

	85-86	86-87	87-88	88-89	89-90	90-91 to 94-95
Prog. Management	1.0	1.0	1.0	1.0	1.0	4.0
- Assistance to Industry Technology and Product Development	6.0	9.0	4.0	5.5	5.5	-
- Post-Launch Communication	-	-	-	-	-	20.0
- Program Contingency	-	1.0	1.0	1.0	1.0	2.0
- Contribution to Telesat	-	-	25.0	25.0	25.0	25.0
Total	7.0	11.0	31.0	32.5	32.5	51.0

* Ten year total -- $165 million -- not including a $10 million provision for cost over-runs on the Telesat agreement.

ASSESSMENT

Even though the MSAT Program does not present a significant technical break-through, it is still a risky undertaking because of uncertainty in the market projections and cost estimates. In fact, system design and business planning must rely on a market forecast for at least 11 years in the future because spacecraft procurement and manufacturing takes four years and satellites are designed for a seven year life span. The presence of risk, the small scale of the Canadian space industry and the financial capacity of Telesat are the major reasons that government support for the operation phases is claimed to be required. For these reasons, it is proposed that the federal government share the commercial risk with Telesat for an amount of $100 million in the form of an interest bearing loan repayable on the basis of commercial results achieved over the life of the first two satellites or approximately 14 years. The remaining support, approximately $55 million, would be required by the Canadian telecommunications and aerospace industries.

MSAT capital investment in current dollars is forecast to reach $491 million for the decade starting in 1985-86. Of that amount, the federal government is expected to contribute a total of $165 million or one-third. While this level of support may be required, it does not seem appropriate to use $100 million from the Canadian space program budget to share a commercial risk with Telesat which is already 50 per cent owned by the federal government. If this level of assistance is justified, other instruments such as loan guarantees, loans, or repayable contributions, would seem more suitable.

OPTIONS

The MSAT Program is part of the Canadian space plan which also includes major projects such as RadarSAT and Space Station. It is the view of the study team that a decision regarding the implementation and operations phases of MSAT should therefore be made taking into account the benefits that could be generated by other space programs and the availability of financial resources over the next decade.

Major reductions have been achieved in the estimated requirement for government support, in large part through innovative cost sharing arrangements with NASA and the private sector. However, the study team thinks that it might be possible to satisfy national needs and achieve further reductions by using the U.S. satellite which is planned to be launched at the same time as MSAT. This would significantly reduce the commercial risk to Telesat and therefore the government's financial commitment. A second generation Canadian satellite could be used after the system has been completely assessed with regard to technical and commercial viability. Furthermore, this approach might open a number of export opportunities for the Canadian industry specializing in ground equipment.

OLYMPUS LARGE SATELLITE PROGRAM (L-SAT)
(Department of Communications)

OBJECTIVES

To develop a telecommunications satellite by the European Space Agency (ESA) and launch it on a five-year demonstration mission to prove L-SAT's technical and commercial viability.

Canadian participation in Olympus aims to strengthen the capabilities of the Canadian space industry and enhance its international sales prospects. Specific objectives of the program are:

1. to obtain access to the Olympus satellite on favourable commercial terms for use by SPAR Aerospace;
2. to foster sales of satellite hardware by Canadian companies in follow-on commercial programs through to 1999; and
3. to provide experience for Spar Aerospace through worthwhile participation in integration and testing of the complete spacecraft in the David Florida Laboratory.

AUTHORITY

Cabinet decisions February, 1981 and September, 1981 on the Canadian Space Program.

DESCRIPTION

The Olympus program comprises the development, launch and operation of a demonstration satellite (L-SAT) and is managed by the ESA on behalf of eight participating countries, of which Canada is one. The Olympus demonstration satellite will provide experimental direct broadcast services to Europe in addition to high frequency experiments in which Canada may participate. The satellite has been designed to carry a range of communications and other payloads so that the basic design will be commercially attractive for a wide variety of missions. An international industrial team, headed by British Aerospace as prime contractor, has been set up so as to allocate the industrial work amongst the participating countries. Each country pays a contribution to ESA in proportion to the value of the industrial work received by that country. Satellite launch is currently scheduled for mid 1987.

BENEFICIARIES

Canadian space companies are selling components for the demonstration satellite and could develop spin-off sales in future satellites of a similar type.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-92
ESA Contributions	15.0	14.7	19.0	7.8
Development Contracts	1.8	.1	-	-
Ground Support Equipment	2.0	.2	-	-
Other Expenditures	.1	1.6	1.6	.6
TOTAL	18.9	16.6	20.6	8.4

Expenditures prior to 1983-84 amounted to $27.4 million resulting in total budgeted expenditures through 1992 of $91.9 million.

OBSERVATION

Canada and the ESA have signed an Agreement which commits Canada to pay its share of the program costs until it is completed in 1992. Canadian companies mainly Spar Aerospace and Com Dev have received orders for high technology components. Total Canadian export sales to be generated by the demonstration phase of Olympus are projected to be $44.3 million.

ASSESSMENT

Since Canada has committed to share in the Olympus program through its completion in 1992 and is also an important component supplier, the opportunity to withdraw is limited.

OPTIONS

The study team is of the view that withdrawal from the program is not appropriate since it could cause a significant international conflict between Canada and some of its important European trading partners. While continuing with the program through completion, the study team recommends to the Task Force that the government attempt to generate as much Canadian supply business as possible.

INTERNATIONAL COLLABORATION ASSISTANCE FUND FOR RESEARCH ON NEW INFORMATION TECHNOLOGY (Department of Communications)

OBJECTIVE

To encourage the private and public sectors to acquire from abroad the know-how required to strengthen the development of a competitive Canadian industry in new information technologies.

AUTHORITY

Cabinet 1984.

DESCRIPTION

The International Collaboration Fund, announced in August 1984, will enable Canadian organizations, both private and public, to participate in international co-operative research projects on new information technologies and acquire the knowledge needed to strengthen this central industrial sector. This is accomplished by having Canadians, with technical expertise, work abroad in scientific centres of excellence for significant periods of time.

BENEFICIARIES

Small and medium Canadian organizations involved in new information technology.

EXPENDITURES (millions of dollars)

	84-85	85-86	86-87	87-88
Other O & M	0.5	0.5	0.5	0.5
Grants & Contributions	0.4	0.4	0.4	0.4
Capital	0.1	0.1	0.1	0.1
TOTAL	1.0	1.0	1.0	1.0
Person Years	1	3*	3*	3*

* Approval given on the condition that 2 of the person years be used exclusively for the purpose of compensating government organizations for participating in the program.

OBSERVATION

The program is designed to provide technology transfer to Canada. The program appears to be slanted to a narrow segment of technology within the communication field. There appears to be overlap between the Catalytic Seed Fund in External Affairs and this program.

ASSESSMENT

The program was only initiated in late 1984 and there is insufficient experience to assess effectiveness.

OPTIONS

The study team recommends to the Task Force that the government consider integrating the program with the External Affairs Catalytic Seed Fund and after a reasonable period (two years) perform an independent evaluation to determine program effectiveness.

TELIDON EXPLOITATION PROGRAM
(Department of Communications)

OBJECTIVES

To achieve recognition and domination of Telidon as a national and international standard for the videotex industry.

To foster the development of a complete and commercially viable Canadian videotex industry which will bring to Canada economic benefits from both the use of this technology and the sale of videotex goods and services at home and abroad.

AUTHORITY

Cabinet 1978.

DESCRIPTION

Telidon is an advanced information communications technology which is best known for its capabilities to enable business people, consumers, and others to access graphical and textual information stored in data banks by using a normal telephone link and a decoder connected to a television set. In fact, because of its flexibility the Telidon standard (coding scheme) can be used for a wide variety of applications, including commercial and industrial applications which require high resolution graphic communication systems such as CAD/CAM.

Telidon was invented at the Communications Research Centre (CRC) of the Department of Communications (DOC). The research involved interactive computer graphics and computer design for application in Canada's space satellite program. In 1969, research and development into a new and interactive visual communications system was started. By the end of 1977, the CRC research had resulted in three patent applications: one for a touch sensitive input mechanism for computerized graphic displays; one for a new interactive visual communications system; and the last for a new interactive graphics programming language. The first Telidon terminal had a public demonstration in August 1978, and in that month DOC announced a four year "Telidon Development Program".

The program was initiated as a cooperative project between the federal government and the private sector with the aim of seeding the creation of a Canadian videotex industry. It was a four year "sunset" program to be terminated at the end of 1982/83.

In 1979, DOC began to transfer available laboratory-level Telidon technology to industry for commercial development and to serve as the infrastructure for a Canadian videotex industry. Prior to 1981, $46.5 million was allocated to the program. These funds were used for field trials, product development, industry investment stimulation and research and development.

In 1983, the program was renamed "Telidon Exploitation Program" with an additional budget of $23 million and a "sunset" date of March 31, 1985. Of that amount, $17 million was allocated to DOC; $3.5 million to the Department of Supply and Services for the Cantel project, a public information system; and $2.5 million to the Department of External Affairs for an international marketing program. The $17 million allocated to DOC is being used for:

- encouraging the development of content in the Telidon format;
- continuing R&D of Telidon technology;
- application engineering;
- standards development; and
- technical support to External Affairs and Supply and Services in carrying out their mandates.

BENEFICIARIES

A videotex industry has been created in Canada consisting of information providers, service providers and equipment manufacturers of Telidon terminals. The business community and the public in general benefit from this sophisticated Canadian information technology.

EXPENDITURES (millions of current dollars)

	83/84	84/85	85/86*
Salaries and Wages	1.0	1.2	
Other O & M	-	-	
Grants and Contributions	0.4	4.0	
Capital	2.5	6.4	
TOTAL	3.9	11.6	
Person years	27	30	

* This program "sunset" on March 31, 1985 with an unspent balance of $1.5 million.

OBSERVATIONS

Telidon was initiated as a government program in 1978 and information technology has undergone significant changes since that time. The hardware and software environment has advanced rapidly. Micro-computers are now firmly entrenched in the business world and to some extent in Canadian households. Advanced information networks, integrated computer systems, and micro-chips are becoming commonplace. Given this rapidly changing technology environment, a new context for Telidon, probably involving more specialized applications, is emerging.

ASSESSMENT

Key to the whole system was the Telidon unique standard for the videotex industry which took longer and was more expensive to develop than originally expected. However, it has now gained full acceptance in North America, it is recognized as the standard for videotex services by both the Canadian Standards Association (CSA) and the American National Standards Institute (ANSI) in the U.S. It has also been incorporated into the standard recommended for videotex services by the International Telegraph and Telephone Consultative Committee (CCITT).

The program with its direct contributions and the transfer of technology has provided the necessary tools to develop a videotex industry in Canada which is gaining recognition domestically and internationally. Despite its relatively embryonic size, 1,500 employees, the Canadian industry is in a position to exploit new Telidon opportunities such as page creation automation, teleconferencing, sound enhancement, animation etc.

OPTIONS

The study team recommends to the Task Force that the government consider discontinuing this program. Future opportunities will require additional R&D investments that the industry should undertake on its own with the support, when justified, of regular government technical or financial assistance mechanisms.

SUBSYSTEM DEVELOPMENT AND ADVANCED R&D PROGRAM
(Department of Communications)

OBJECTIVE

To support Spar Aerospace Limited in developing a competitive capability in domestic and export markets as a prime contractor and as a subcontractor to foreign prime contractors.

AUTHORITY

Cabinet - 1981.

DESCRIPTION

The implementation of this program can be divided into three phases with the ultimate goal of developing a commercially viable, communications satellite prime contractor by 1990.

Phase I — To design and develop subsystems and products for which immediate markets existed, thereby allowing the company to maintain a critical level of personnel and to update its technological base.

Phase II — To develop internationally competitive satellite payloads and payload components for sale to other satellite manufacturers and for use by Spar in its own satellite sales such as Telesat's next procurement in about 1986. This will level out the peak and valley effects of major projects such as Brazilsat. A significant base of ongoing R&D activity is necessary to supply the resources to handle the peak load and permit staff retention between major projects.

Phase III — To establish a partnership or teaming arrangement with a foreign supplier of space platforms. As a result of past commercial relationships, Spar has chosen to team with Hughes Aircraft. With government assistance and endorsement, Spar has negotiated an agreement with Hughes that provides

royalty-free access to the Hughes family of satellite designs and preferential consideration by Hughes of Spar as a subcontractor. Funding for Phase III is therefore required for technology and product development for future generations of satellites and to exploit the opportunity of being a major subcontractor to Hughes.

BENEFICIARIES

Spar and, to lesser extent, the Canadian space industry as a whole since it stands to share benefits in the form of production or R&D sub-contracts.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86*
Salaries and Wages**	-	-	-
Other O & M	2.7	7.0	4.3
TOTAL	2.7	7.0	4.3

* The program sunsets on March 31, 1986.

** There is no specific allocation of personnel for the management of this program which utilizes the equivalent of one person year.

OBSERVATION

Although communications applications have so far dominated the Canadian scene, other applications such as remote sensing and Canadian participation in the U.S. space station program, are maturing and should offer both a challenge and an opportunity to Canadian industry.

ASSESSMENT

The program played a significant role in Spar's successful 1982 bid to suply two communications satellites to Brazil. The cost of nonrecurring development work on payload systems was assumed by the federal government, thereby giving Spar the required competitive edge over other world class manufacturers.

Because of the huge military program that fosters U.S. satellite manufacturers, Canada will never have the capability of manufacturing economically competitive satellites. Major components (essentially the space platform) must be purchased from a foreign manufacturer. Furthermore, it became clear in the late 1970s that Canada could not achieve significant industrial benefits from its exploitation of space if Canadian industry was only a supplier and subcontractor to foreign satellite prime contractors, and equally, that the funding required to develop a Canadian prime contractor on the scale of the U.S. competition was not available. The concept of developing a limited prime contractor evolved. The strategy involved securing arrangements with foreign prime contractors to supply space platforms to Spar Aerospace. A major government/industry cost-shared program has been established. It will see the joint development by Spar and Hughes Aerospace of a new family of spacecraft to meet domestic and export markets over the next decade.

OPTIONS

This program is part of the Canadian space plan and it is the view of the study team that any decision to provide additional funding to Spar Aerospace should be made on the basis of the national long term objectives for the space industry and the priority accorded to programs such as MSAT, RADARSAT and Space Station.

OVERVIEW
PROGRAMS FOR THE CULTURAL INDUSTRIES

INTRODUCTION

The Program Review of the cultural industries includes an examination of measures of support provided to newspapers, periodicals, book publishing and the film and video industry. Thus, explicitly excluded are sound recording and broadcasting which are normally included in the definition of cultural industries.

OBJECTIVES

Unlike many other industrial support programs examined by the team, these programs are distinguished by having a duality of objectives which, at times, is conflicting. In essence, the support measures are based on the premise that Canadians have a right to information (concessionary postal rates) but further, that they should have, as an option, access to cultural products which portray Canada and Canadians to themselves. In every instance program managers conceded that the cultural objective took precedence over the industrial development objective; however, it is clear from the objectives of specific programs that the designers had in mind that the cultural goal could be realized if only the industry could be made right first.

DESCRIPTION

Support to the cultural industries is diverse. The measures are listed here, together with their estimated value in 1984-85.

	Millions of dollars
Sales tax exemption	
Books	85.0
Newspapers & magazines	250.0
Income tax exemption	
Ads in Canadian Media*	
Postal rate subsidy**	225.7
Capital Cost Allowance	
Film & Video	10.0
Telefilm Canada	
Programs	3.0
Broadcast Fund	48.7
Book Publishing Program	9.9

* No estimate available.
** Includes $170.0 million for Post Office infrastructure.

OBSERVATIONS

Newspapers: The newspapers clearly benefit by being exempted from the 10 per cent Federal Excise Tax -- to the amount of $150 million in 1984-85 (TES-16). They may also be said to reap some benefit from the postal rate subsidy (DOC-101) although in discussions with industry representatives, this was consistently denied. In fairness, no one admitted to benefiting from the postal subsidy -- not DOC, not the Post Office, not the newspaper or magazine publishers. Finally, newspapers benefit from an income tax provision which allows an advertiser to deduct from taxable income advertising expenditures in the Canadian market which are placed in Canadian newspapers or magazines. This provision has discouraged foreign take-overs while encouraging advertisers to use Canadian publications. It has provided a framework within which the daily industry has been able to function profitably. There is no provincial sales tax on newspapers. A recent report on the cultural industries noted, "Quite clearly, this is not an industry that accepts nothing from government".

There are two classes of newspapers, dailies and weeklies. The dailies are dominated by large chains -- Southam and Thompson accounted for 48 per cent of total circulation in 1980. Total weekly circulation exceeded 32 million in that year. They are well-financed and well adapted to technology. They tend to carry similar news, of national and international scope. They provide greater depth of information than television. They have largely ceased using postal service because of unreliable delivery.

The weeklies are quite another matter. They tend to be small business operations. They carry local news and have limited circulation -- Association figures indicate average circulation for 630 weeklies is 6,539 copies per issue. Because of the small town locations and the rural readership of many, they are highly dependent on the Post Office for delivery -- a service which they claim to be unreliable. Advertising revenues are threatened by the trend to centralized advertising by the chain stores and by the Post Office itself which is actively competing with the weeklies for advertising business.

Periodicals: Periodicals benefit from the same programs as the newspapers. The sales tax exemption for them is estimated at $80 million in 1984-85, and applies both to Canadian and foreign publications. Because there is a large inflow of periodicals -- unlike newspapers -- a significant proportion of the tax benefit accrues to foreign publishers. For periodicals the advertising provisions of the Income Tax Act are complemented by a section of the Customs Act which prohibits the import of foreign magazines containing more than five per cent Canadian advertising. Together, these conditions direct domestic advertising revenues toward Canadian periodicals. Provincial sales tax applies to periodicals.

Like the newspapers, periodicals disclaim any benefit from the postal subsidy. Because of unreliable delivery, many have taken steps to minimize use of postal services. Canadian periodicals are overwhelmingly sold through subscription. Recent figures indicate that only 16 per cent, compared with 71 per cent for foreign periodicals, are sold in single copy. There appear to be two reasons. Domestic magazines represent a small proportion of total magazines available and are likely to receive less attention from the large national distributers who are mainly foreign-owned. Only one major Canadian paid-circulation publisher has its own distribution company. This parallels the distribution problem in the film industry.

The periodical industry is highly concentrated in Canada. Advertising revenue figures for 1979 indicate that one publisher accounted for 36 per cent of English-language and 44 per cent of French-language revenue.

Books: Books and book publishing bring us closer to the issue of distinctly Canadian culture. The support provided by governments is quite different from that for newspapers and periodicals. Books do receive a special postal book rate, estimated to cost $40 million in 1981-82. It is available to any publisher, wholesaler, bookclub, direct mail publisher or retailer whether or not any books are acquired from Canadian publishers or any Canadian books sold. Books trucked into the country from the U.S. can be mailed more cheaply than through the U.S. postal system. Mail order sales (of mainly foreign books) have been increasing.

Books are also exempt from sales tax, both federally and provincially. The value of the federal exemption is estimated to be $85 million in 1984-85 of which less than $10 million supports books written by Canadians.

The only direct federal support program for books reviewed by the team was the Book Publishing Development Program. The Program was established in 1979 to try to combat the three major problems facing the Canadian book publishing industry -- foreign competition, distribution and under-financing. Because of the economic down-turn, the program did not substantially strengthen the industry but did sustain some companies that might otherwise have foundered. Nonetheless, it is recommended that the program be continued but with tighter eligibility criteria and better management on the part of DOC.

The Canada Council provides modest support ($4 million in 1979-80) for things like translation grants, promotion and purchase and distribution of Canadian authored books to non-profit institutions in Canada and abroad. Similarly, DSS has a co-publishing program and the granting councils provide some funding for scholarly works.

The provinces provide a variety of loan, loan guarantee and interest subsidy programs for publishers. Most active are Newfoundland, Quebec, Ontario, Alberta and British Columbia. Manitoba recently commissioned a study of its industry. Ontario publishers account for over 80 per cent of sales by Canadian book publishers.

In the time available it has not been possible to analyse carefully the existence or extent of duplication. Available information seems to indicate that it is not extensive. The provinces appear to have similar aims but to reach publishers/distributers who would not qualify for BPDP support.

Film and Video: Support for the film and video industry has a chequered past, largely because of the introduction in 1974 of the 100 per cent, one year, Capital Cost Allowance for investment in certified Canadian films. It resulted in the production of films with little artistic merit and less in distribution agreements. Many gather dust on the shelves and the unfortunate investors have recognized you cannot make money by losing money.

Three support measures were reviewed -- the Film and Video Certification Office, Téléfilm Canada and the Broadcast Program Development Fund (DOC-3, TFC-1, TFC-2). It is recommended that present programming be left untouched for two years. The Certification Office is a small administrative unit whose Canadian film criteria have been adopted by other bodies. The Capital Cost Allowance has been spread over two years and is attracting better investment. Telefilm Canada's budget is insignificant in itself, but the Corporation appears to be successfully managing the Broadcast Fund -- still in its developmental phase.

Canada now has a world-class production industry, creating desirable employment that generates higher revenue per person employed than the major industrials. International sales have increased. Films supported through the Broadcast Fund account for three of four Genie nominations for best picture this year. One of these was named best film at the Toronto Festival of Festivals.

ASSESSMENT

Canada's cultural industries will continue to require support if they are not to be overwhelmed by foreign competition. There is, however, room to adjust and fine tune support, to improve targetting and to reduce expenditures.

OPTIONS

In view of these considerations, the study team recommends to the Task Force that the government consider implementing the following measures:

- Sales Tax Exemption: Books -- Eliminate general exemption ($85 million). Offset through better targetting of BPDP and provision of a limited exemption for qualified institutions.
- Sales Tax Exemption: Newspapers and Periodicals -- Eliminate general exemption ($250 million). Offset by support for Canadian periodicals and the vulnerable newspaper weeklies.
- Income Tax Exemption: Canadian Ads -- Retain. With elimination of the general sales tax exemption, these two measures will now be consistent.

- Postal Rate Subsidy -- No rational discussion can take place until Canada Post figures out how much it costs to provide various services. Until then, subsidies can only be arbitrarily assigned and beneficiaries are unspecified. DOC should review the publications now eligible for preferential rates to determine if they should continue to be in light of current cultural objectives. Steps should be taken as soon as possible to begin to phase out the subsidy (see DOC-101).
- Capital Cost Allowance: Film and Video -- Retain for a period of two years in its present form. DOC should examine current and future industry financing needs to determine if the CCA is still required or beneficial.

  Téléfilm Canada and Broadcast Program Development Fund -- Allow to continue and mature for two years, subject to minor modifications based on current industry consultations.
- Book Publishing Development Program -- Extend the program beyond its March 31, 1985 sunset date but at a lower funding level ($8 million) and with substantially revised and more stringent eligibility criteria and closer monitoring by DOC.

Summary	**Millions of dollars**
Sales tax exemption	
Books	24.0
Newspapers & Magazines	30.0
Income tax exemption	
Ads in Canadian media*	
Postal rate subsidy**	200.0
Capital Cost Allowance	
Film & video	10.0
Téléfilm Canada	
Programs	6.8
Broadcast Fund	51.6
Book Publishing Program	8.0

* No estimate available.
** Rough estimate only. Amount depends on phase-out rate.

CANADIAN FILM AND VIDEO CERTIFICATION OFFICE (CFVCO)
(Department of Communications)

OBJECTIVE

To certify film and videotape productions as being "Canadian" for the purposes of the 100 per cent Capital Cost Allowance provided in the Income Tax regulations.

AUTHORITY

Appropriation Act

DESCRIPTION

This Office exists to determine if productions qualify for the film and video tape capital cost allowance (CCA) provided through the Income Tax regulations.

The immediate purpose of the CCA provision is to increase private investment in films in Canada and to lever direct government investment through, for example, the Broadcast Program Development Fund. Secondly, the provision is designed to strengthen the film industry in Canada, to generate and to retain economic benefits in Canada and to encourage the production of manifestly Canadian films.

In recent years the office has processed, on average, 600 advance rulings, 600 provisional approvals and 950 certificates, although the number of applications is higher in 1984. The tax expenditure resulting from the regulations is approximately $10 million per annum.

BENEFICIARIES

The Canadian film and video industry generally has benefited. DOC indicates that there are now over 300 production companies, double the number in 1973. Industry employment is estimated as some 6,100 permanent and 10,200 part-time employees.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Salaries and Operating	0.3	0.3	0.3	0.3	0.3
PY's	6	6	6	6	6
Revenues	*	*	*	*	*

* Less than $40,000 per annum credited to the Consolidated Revenue Fund.

ASSESSMENT

The certification criteria developed by the Office have been used as a model by other government agencies such as the CRTC, Téléfilm Canada and l'Institute québécois du cinéma.

There is no program evaluation for the CCA provision. Since the introduction of the 100 per cent allowance in 1974, it has undergone numerous revisions to improve targetting and eliminate abuses which occurred early on. While not solely as a result of the CCA, the Canadian film industry has matured considerably during the life of the program.

The number of feature productions has increased but perhaps more important has been the development of industry infrastructure -- world class studios, professional film crews, technicians and actors. Further, the CCA provision has attracted private investors to film production.

The industry suffers from an inability to secure reasonable distribution and screen time for its feature products -- a characteristic shared with less commercial U.S. films. North American, and indeed world wide distribution, is largely controlled by some ten major U.S. companies. This factor, coupled with opportunities spawned by the growth of pay T.V. programming, has led producers largely to abandon "theatrical" features in favour of productions aimed at the television market. The new technologies provide distribution options and create opportunities for private Canadian producers to fill the content vacuum.

OPTIONS

The 100 per cent CCA provision is to be evaluated in 1986. The evaluation will examine alternative incentives, such as R&D-type tax credits and will consider whether subsidies to encourage investment are still required in light of marketing and distribution initiatives contained in the National Film and Video policy. Pending completion of the evaluation, the study team recommends to the Task Force that the government consider maintaining this program without change. As well, the study team is of the view that the "half-year rule" which effectively spreads the CCA over two taxation years should not be eliminated as some have suggested. On the other hand, National Revenue, Taxation should be encouraged to clarify its position on the tax treatment of legitimate distribution guarantees, as uncertainty on this issue tends to discourage investment. In the meantime, DOC should be encouraged to examine current and future industry financing needs in light of the many changes in policy and programming in the past two years. It should specifically address whether the CCA continues to be required to achieve the government's industrial, economic and cultural goals for the industry.

BOOK PUBLISHING DEVELOPMENT PROGRAM (BPDP)
(Department of Communications)

OBJECTIVE

The objective of the program is to increase the economic viability of Canadian owned publishers and to increase the distribution and sales of Canadian authored titles.

AUTHORITY

Appropriation Act

DESCRIPTION

The BPDP was established in 1978 to assist the Canadian owned and controlled segments of the book publishing industry. Assistance in the form of contributions is provided for:

sales and marketing;
Canadian textbooks and related materials;
company analysis and implementation;
feasibility projects and implementation;
foreign rights marketing;
professional development;
research and documentation; and
export marketing.

The bulk of funds is provided for the first two activities.

BENEFICIARIES

Any firm whose principal activity is book publishing, is Canadian controlled and is 75 per cent Canadian owned; that has at least 15 Canadian authored titles in print (four in each of the previous two years) which have been at least 75 per cent manufactured in Canada and has certain minimum sales may apply. The structure of the Canadian sector -- many small and few large in terms of sales -- and the principle of allocating funds on the basis of previous years' sales has produced a population of beneficiaries similarly distributed. Foreign controlled firms have benefited from distribution systems improvements funded by the program and from the foreign rights marketing support.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Contributions:					
authorized	9.2	9.7	0*	0*	0*
actual	8.2				
O & M	0.1	0.2			
TOTAL	8.3	9.9			
Person Years	2				

* Program due to terminate March 31, 1985

OBSERVATIONS

The Canadian book publishing industry began to develop in a significant way in the 1960s. Up to that time the market was largely serviced by well-established foreign companies. Although traditionally foreign publishers have demonstrated less of a propensity to publish Canadian titles than Canadian owned publishing houses, this trend is moderating as the market for Canadian titles grows. Nonetheless, there remains a segment of culturally significant but commercially risky titles which stand a better chance of being published by Canadian houses.

A program evaluation completed by DOC in June 1984 substantiated the BPDP rationale -- increasing the economic viability of Canadian-owned publishers will increase publication and sales of Canadian-authored titles. However, despite the expenditure of some $40 million over five years, BPDP did not increase the economic viability of the target sector and, consequently, did not increase the average number of Canadian-authored titles published by recipient companies. The sector continues to be afflicted by the same problems with respect to management and capitalization which caused the program to be established in 1978. Thus, the evaluation concludes that a revised program should be adopted.

A publishing support strategy, including a proposal for a revised book publishing development program, is being developed for ministerial consideration. The strategy will focus on access to financing, improving management skills and improving domestic and international marketing -- in large part under the aegis of other programs, such as FBDB and PEMD.

Across the federal government there are a number of programs providing support amounting to some $13 million per annum to book publishers. The evaluation reported that Canadian book publishers receive the second highest per capita support of ten OECD countries studied. Only Sweden spends more. Within Canada, and on the basis of usage, book publishers receive higher levels of support than Canadian radio or television but less than Canadian music, theatre, dance and film sectors.

There do not appear to be major areas of duplication of funding. There maybe some opportunities to rationalize funding and delivery through the integration of publishers into broad-based industrial support programs.

ASSESSMENT

Allowing funding to terminate in March 1985 as scheduled would bring about a major shake-out in the Canadian owned and controlled sector. Bankruptcies, mergers of small and medium sized companies and an overall decline in the availability and variety of Canadian titles reaching the market would result. The smaller publishers would be most affected.

OPTIONS

The study team recommends to the Task Force that the government consider putting in place a revised program. There is little doubt that the BPDP fell far short of its industrial development objective. Undirected funds were used by recipients to shore up flagging revenues during difficult economic times; however, if the underlying premise of cultural development remains an objective, the program rationale is still valid.

It is the view of the study team that a more effective program can be designed. Eligibility criteria can be established to limit access and direct funding to companies demonstrating positive indications of potential economic viability. Contributions can be directed to specific project proposals supporting the program objectives including continued support to improve ordering and distribution systems the one area where BPDP was successful. The program should have a sunset clause and a specified evaluation point.

A program along these lines would bring about a measure of (needed) rationalization on the sector. By encouraging firms more likely to become economically viable, it would contribute to the long-term health of the Canadian sector and sustain publishing opportunities for Canadian authors.

CONCESSIONARY POSTAL RATE SUBSIDY FOR PUBLICATIONS MAIL (Department of Communications)

OBJECTIVE

To "buy down" the rates chargeable by Canada Post (CPC) for delivery of certain newspapers and periodicals.

AUTHORITY

The Appropriation Act.

DESCRIPTION

Preferential second class postal rates have provided for subsidized delivery of newspapers and periodicals for over 100 years. Subsequently, special rates were adopted for book publishers, distributors and retailers and book shipments for libraries.

Until 1978 the program was the sole responsibility of CPC but, in that year, it was transferred to the Minister responsible for publishing policy. In 1982 DOC and CPC began negotiating amendments to the original Memorandum of Understanding. A new agreement is currently under negotiation at the Ministerial level between DOC, CPC, TB and Finance.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Subsidy	53.0	55.7	55.2	55.2	55.2

BENEFICIARIES

Opinion varies -- DOC regards the subsidy as benefiting CPC. CPC claims to be simply carriers and argue that if DOC wishes to "buy down" the true cost of one element of the postal service for their own reasons, they are free to do. The publishing industry universally does not want the subsidy to be perceived as beneficial to them. Any implication of federal influence on the freedom of the press arouses strong protest.

Observations

About 50 per cent of all periodicals are distributed by Canada Post. The service is ingrained in the structure of the industry and undue stress would occur if the subsidy were suddenly withdrawn and CPC seized the opportunity to increase the postal rate markedly.

One major magazine publisher claims it only uses the postal walkers for delivery. Magazines are sorted into 26,000 bundles by "walk", air freighted at a cost of $500,000 per annum and delivered at publisher expense virtually to the backdoor of each post office ready for the carrier. No use is made of the postal entry system (post office collection, "storefront operations", sorting and shipping), only the final process.

The newspaper industry offered two viewpoints. The weeklies -- largely small town community-based papers -- expressed the view that CPC was overtly attempting to harm them. Cases were cited and proof was offered of CPC outbidding newspapers for the delivery of flyer type advertising. This 3rd class mail was not only given priority over the 2nd class mail but any flyer in the 2nd class mail had to bear the name and date of the newspaper in which it was contained, otherwise 1st class rates were applicable. Other examples of overly stringent rules included a Milton, Ontario newspaper that lost its privileged rate because it had several subscribers within the prescribed radius in a metropolitan area (Toronto), and a weekly that wished to publish bi-weekly but was told that if it did, it would lose its postal privileges and be treated as a daily.

The dailies allege an inability to use CPC regardless of cost, as a 24-hour delivery service is crucial to their needs. When they do find it necessary to use CPC (mainly in remote areas) they pre-sort, truck and deliver the mail to the postal carrier as he leaves on his round to ensure delivery i.e. they absorb the cost of most of the service they pay for.

All media reported unacceptable service and high levels of customer complaints attributable to CPC, e.g. three editions of a weekly delivered concurrently.

ASSESSMENT

The postal service is not capable of providing the level of service required by the industry. The industry itself is not prepared to accept any direct federal subsidy as it is perceived as prejudicial to the concept of a free press.

OPTIONS

The study team recommends to the Task Force that the government consider the following course of action:

For Canada Post:

1. determine the cost of handling each class of mail. This would enable them to justify any follow-on subsidy program, defend any rate increase and focus their attention on areas of potential cost reduction; and

2. provide a "near courier" service to the publications industry for second-class mail received by the letter carrier in a ready-for-delivery format. This would meet the industry's needs more precisely and would put any future subsidy for this service on a more realistic basis.

For the federal government:

1. the regulation and authority to define mail must be beyond the jurisdiction of CPC, in order to protect the interests of competing carrier companies;

2. furthermore, since CPC competes with private carriers, its monopoly should be regulated in the same manner as a telephone or telegraph carrier is regulated by CRTC. Any change in service or rates should only be authorized after public hearings, full financial disclosure and accountability;

3. the methods used by CPC to generate more revenue should be closely watched to ensure that federal subsidization does not permit unfair competition in new activities;

4. the cultural objectives of the federal government need to be defined in the light of the costs incurred. It is not clear who is benefiting from what. Furthermore, it is not clear that all of the publications currently eligible for preferential rates should continue to benefit from them; and

5. all subsidies to CPC should be consolidated to ensure visibility.

For the publications industry:

1. make its views known; and

2. re-examine the concept of direct federal aid being a threat to freedom of the press. This problem is not evident in other media.

TELEFILM CANADA
(Department of Communications)

OBJECTIVE

To foster and promote the development of a feature film industry in Canada.

AUTHORITY

Canadian Film Development Corporation Act (1967).

DESCRIPTION

Until fairly recently the Canadian Film Development Corporation's (CFDC) mandate allowed it to support, through loans and investments, the production, promotion and distribution of Canadian feature films by independent Canadian producers. In 1983, as an element of a national broadcasting strategy, CFDC undertook the administration of the newly created Broadcast Program Development Fund (BPDF). Incremental funding of $254 million over five years was approved. CFDC received another boost with the introduction of the national film and videotext policy in 1984. Its name was changed to reflect the emergence of video films and diverse new distribution modes, the foreign offices of the National Film Board were turned over to it, and additional funding was allocated for existing and new film support programs. (See following summary of programs.)

BENEFICIARIES

Immediate beneficiaries have been the independent production houses and the supporting human infrastructure -- script writers, film crews, etc.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Téléfilm Programs		3.0	6.8	6.8	6.8
BPDF	32.6	48.7	51.6	53.6	67.5
Administration		6.0	7.2	7.1	7.2
Subtotal		57.7	65.6	67.5	81.5
Revenue					
Téléfilm		0.5	0.5	0.5	0.5
BPDF		3.2	4.5	4.9	5.1
Subtotal		3.7	5.0	5.4	5.6
Net expenditure		54.0	60.6	62.1	75.9

ASSESSMENT

Prior to 1968, Canadian industry was producing fewer than five feature films per year. During the early years of the CFDC, that number rose to 20. DOC figures indicate that there are now more than 300 Canadian production companies. The industry appears to have survived the inflow of funding produced by the generous tax treatment of investment in films in the early 1970s. Companies capable of producing good quality, money-making films are emerging.

In reality, Téléfilm Canada's ongoing programs have been dwarfed by the BPDF.

OPTIONS

The study team recommends to the Task Force that the government consider supporting Téléfilm's initiatives to achieve a more sensible balance among the monies allocated to the various stages of getting the product to the audience -- development, script, production, promotion and distribution.

ANNEX I

Téléfilm Canada Financing Programs
1983-84 and 1984-85

(millions of current dollars)

1. CANADIAN BROADCAST PROGRAM DEVELOPMENT FUND

Eligibility High quality Canadian television programs in drama, children's programming or variety categories with the following characteristics:

1. The production company must be under Canadian control.

2. An eligible Canadian broadcaster has agreed to air the program within two years of completion.

3. Each dollar invested by Téléfilm will be matched by at least two dollars of investment from other sources.

	83-84	84-85 (Projected)
Budget	34.0	50.0
Disbursements:		
contracts	9.1	40.0
administration	1.1	2.1
Subtotal	10.2	42.1
Balance available as of March 31	23.8	7.9
Commitments:		
signed contracts	1.2	10.0
letters of intent	13.5	5.0

2. SCRIPT AND PROJECT DEVELOPMENT PROGRAM

Eligibility Canadian independent producers, for the preparation of Canadian film and television productions. Each dollar invested by Téléfilm will be matched by at least one dollar of investment from other sources.

	83-84	84-85 (Projected)
Disbursements	1.2	2.4

3. GENERAL PRODUCTION INVESTMENT PROGRAM

Eligibility Canadian independent producers of fiction or documentary films of a distinctly Canadian nature and not eligible for the CBPDF program.

	83-84	84-85 (Projected)
Disbursements	1.9	1.4

4. PROMOTION AND ADVERTISING PROGRAM

Eligibility Distributors of Canadian feature films produced by the private sector and having a first commercial theatrical release in Canada.

	83-84	84-85 (Projected)
Disbursements	0.05	0.6

(first year of the expanded mandate)

5. **INDUSTRY SUPPORT PROGRAM**

Eligibility Activities or events offering benefits to or promoting the Canadian industry.

	83-84	84-85 (Projected)
Disbursements	0.2	0.6

6. **TEST MARKETING**

Eligibiltiy Distributors or producers of Canadian feature films produced by the private sector and anticipating a first commercial theatrical release in Canada.

	83-84	84-85 (Projected)
Disbursements	-	0.05

7. **FESTIVALS**

Eligibility Grants to Canadian film and video festivals.

	83-84	84-85 (Projected)
Disbursements	0.3	1.0

8. **INTERIM FINANCING FUND**

Eligibiltiy Canadian film producers or distributors who can offer acceptable security on a loan.

	83-84	84-85 (Projected)
Disbursements	3.7	4.6
Reimbursements	2.0	3.0

BROADCAST PROGRAM DEVELOPMENT FUND (BPDF)
(Department of Communications)

OBJECTIVES

To promote an increase in the availability of high quality Canadian television productions in drama, variety and children's programming and the development of a vigorous, private sector production industry in Canada.

AUTHORITY

Appropriation Act.

DESCRIPTION

The fund is administered by Téléfilm Canada on behalf of the Government and is available to Canadian controlled production companies and independent producers with Canadians exercising key financial and creative project controls. The producer must have obtained at least two-thirds of the funding from other sources and a letter of intent from an eligible Canadian broadcaster to air the program in prime time within 24 months of project completion. Up to one-half of the Fund may be used for programs to be aired by the CBC/Société Radio-Canada. Approximately one-third of the Fund is to be used to support French and two-thirds to support English language programming.

During the first year of operation (to 30 June 1984) $23.4 million was committed to 47 English language productions having a total budget of $73.3 million and $12.8 million was committed to 41 French language productions with a total budget of $61.2 million. Fifty-seven productions were to be aired by CBC/SR-C.

BENEFICIARIES

Immediate beneficiaries have been the independent production houses and the supporting human infrastructure -- script writers, film crews, actors etc.

EXPENDITURES (millions of current dollars)

	83-84	84-85	85-86	86-87	87-88
Fund	32.6	48.7	51.6	53.6	57.5
Admin.	1.3	2.1	2.4	2.5	2.7
Revenues*	-	3.2	4.5	4.9	5.1

* Credited to the Fund account

OBSERVATIONS

The BPDF was established as an element of the National Broadcasting Strategy published in 1983. As do other business support programs for the cultural industries, the Fund upholds the notion that Canadians should have available a strong Canadian cultural option and that this can be brought about while accruing substantial economic and industrial benefits for the Canadian industry. In 1981, there were around 300 Canadian production companies with about one-tenth having annual revenues exceeding $1 million.

Television program production is a labour intensive industry. DOC figures indicate that the film and video industry has one employee for every $36,000 of gross annual revenues. For the cable industry the equivalent figure is one employee for $55,000 of gross annual revenues. For the 500 largest North American industrials, the equivalent ratio is $114,000.

The generous tax treatment of investment in Canadian films during the early 1970s produced a great many mediocre films, many of which never saw the light of day. Nonetheless, the flurry of activity provided a training ground for the film technicians who now form the core of a world-class Canadian production industry.

Téléfilm speaks enthusiastically of the activities being supported and opportunities being generated by the Fund. Examples are cited of successes in negotiating co-production agreements which are more beneficial to Canadian industry than in the past and of foreign sales of Canadian productions. As the industry develops, producers from other countries (France, Great Britain, FRG, USA) are seeking to work with Canadian crews.

Domestically, much remains to be done to engage the private broadcasters. Blockbuster series from the U.S. can be purchased more cheaply than Canadian productions and attract more advertising dollars. The major English and French language broadcasters will soon be seeking licence renewals and may be subject to some suasion from the CRTC. In this regard, the government has a Bill (C-20) before the House which includes a clause giving the government powers to issue policy directives to the CRTC. If approved by Parliament, these powers could be used to cause the CRTC, through regulatory and supervisory means, to require broadcasters to take actions resulting in greater use of the Fund.

Téléfilm Canada is conducting an extensive round of consultations with representatives of the production, broadcasting and distribution sectors and the financial community on the functioning of the BPDF. Included are both the criteria governing the Fund and the Corporation's management of it. While results will not be presented to the Minister for a few weeks, agreement on some aspects is emerging. Téléfilm funds should not be transferred to the CBC to replace budget cuts. (CBC has said it will meet existing commitments to independent producers but cannot do more.) The 150 per cent Canadian content credit to broadcasters (à la CRTC requirements) should be retained. Interestingly, there is no agreement on retention of the Capital Cost Allowance half-year rule in its present form. However, both producers and broadcasters appear to be generally satisfied with the BPDF.

ASSESSMENT

Téléfilm has a new, expanded mandate and an increased budget. Its staff is enthusiastic. It is, however, too early to judge the success of resulting products, either in terms of the revenues being generated or audience reaction. Indeed, the whole world of entertainment and knowledge acquisition through film and video is developing at a tremendous rate.

The BPDF is a demand-driven program. Any independent producer meeting the criteria is eligible for funding. Thus, to the extent that it is successful in developing a thriving industry, it may also generate an increasing demand for funds.

OPTIONS

During its first 18 months, the Fund appears to be working, although it is impossible to isolate its effect on the industry from those of other support measures. Results suggest that the Fund should be allowed to continue, subject to appropriate modifications arising from the current industry consultations. The Fund is to be evaluated in 1986, and a variation in expenditures could be contemplated at that time.

It is the view of the team, however, that Téléfilm Canada should be asked to propose ways to wean successful producers from the Fund to forestall the possibility of insatiable demand.

OVERVIEW
ECONOMIC AND REGIONAL DEVELOPMENT SUB-AGREEMENTS

The Economic and Regional Development Agreements (ERDAs) and the sub-agreements that flow from them are among the most powerful and flexible instruments available for the coordinated planning and delivery of programs where the senior levels of government share interest and responsibility. However, the gap between the potential and the actuality in the sub-agreements the team reviewed is enormous. After a review of the planning and management processes at the bureaucratic level, the study team concludes that the responsibility for the disappointing quality of much sub-agreement programming rests at the ministerial level.

The study team did not review all sub-agreements, concentrating on those whose purposes were most related to the general business programs of the rest of this report. We therefore sampled industrial, technological, tourism, infrastructural, and area development sub-agreements, leaving aside the specialized resource sector subs. In summary, the program reviews which follow lead to these conclusions:

a. the tourism subs proceed from a clear national strategy; the study team's concern is that with respect to "facilities production", they are too generous, especially with federal money. At least, though, overlap with other federal programs has been minimized by making tourist facilities ineligible for IRDP assistance;

b. industrial development sub-agreements show no pattern; the most charitable comment is that they may be said to respond to local circumstance. Among these, the urban bus sub-agreement appears to have the most opaque conceptual basis, and the ocean industry sub-agreements the clearest, though their overlap with the development funds embodied in the offshore settlements remains unresolved;

c. science and technology and communications agreements are so far patternless and almost entirely duplicative of existing mechanisms;

d. area development agreements, with the possible exception of the unilateral Bas-St-Laurent/ Gaspésie program, appear to be little more than devices to flow huge resources to hopeless causes.

An elaborate planning process exists for ERDAs. A marriage of the regional perspective of the Federal Economic Development Coordinators and the sectoral strategies of line departments is supposed to be performed by the Cabinet Committee on Economic and Regional Development, who bless each product of the union at two stages: in the form of specific negotiating mandates for sub-agreements, and as a completed program following negotiation with the provinces. Crucial to the process is a rough prior allocation of the total of both new and A-base resources for inclusion in ERDAs, which in turn requires a Cabinet-level settlement of the objectives and strategy behind the whole process.

Current objectives for ERDAs are to:

a. improve federal-provincial harmonization of existing programs and policies,

b. reduce duplication and simplify programs and services,

c. improve the environment for private sector investment and small business development,

d. focus on realistic opportunities for regional economic development,

e. focus on development priorities as a framework for re-allocation of existing expenditures, and

f. give special attention to the reduction of regional disparities.

The problem with these objectives is that they are not constraining. They prohibit nothing, and in consequence almost any proposal can be said to advance one or more of them. Further priorization is essential. Some of the key

questions with respect to the group of sub-agreements the study team reviewed are as follows:

a. Does the existing allocation of financial resources by province and sector reflect the development opportunities of 1985-95?

b. In particular, what is the balance between objective (f) above and all the others?

c. When an ERDA instrument is put in place, are appropriate modifications made to A-base spending, including transfer payments and taxes where the ERDA activity is large enough to make a difference?

d. Should ERDAs support specific industrial projects or concentrate on infrastructure and other "climatic" public goods?

e. Should federal contributions under sub-agreements respect federal constitutional responsibilities more strictly?

f. Is it possible to renegotiate certain economically wasteful sub-agreements, or at least to reallocate the pledged resources to better uses?

g. In ERDA negotiations, is it possible to give greater prominence to national economic goals (the Canadian common market, for example, or the November 8 Statement) -- to change the federal stance from a reactive one to one of strategic leadership?

These are policy questions which are beyond the scope of the study team. Not much can be said in evaluation of the street-level delivery system, however, without a better view of the policy objectives in mind. There would also appear to be considerable inflexibility once sub-agreements have been signed. Consequently, the following section is short on options.

CANADA-SASKATCHEWAN SUB-AGREEMENT ON ADVANCED TECHNOLOGY

OBJECTIVE

To facilitate the establishment and accelerate the growth of advanced technology industries in Saskatchewan.

AUTHORITY

DRIE Act, Appropriation Act, and ERDA.

DESCRIPTION

The Economic and Regional Development Agreement with Saskatchewan provides for joint planning and development of a subsidiary agreement to address the above objective. The sub-agreement will attempt to create an appropriate institutional environment, and strengthen the advanced technology industrial base. The principal methods for doing this will be the establishment of an innovation climate assistance program and an industrial assistance program.

BENEFICIARIES

The provincial government, high technology firms and entrepreneurs, high technology associations, and universities.

EXPENDITURES (millions of current dollars)

	TOTAL DRIE	84-85	85-86	86-87	87-88	Future
Sask. Hi-Tech:	16.6	0.1	2.4	3.6	6.7	

OBSERVATIONS

The rationale behind this agreement is that there exists a high technology oriented industry based in Saskatchewan that can be further developed with infrastructure, the creation of a positive climate for expansion, and some direct financial assistance. The strengths of this advanced technology base are quite different from those in other provinces. Two examples are biotechnology and resource related processing.

Direct federal financial assistance for industrial development has never been significant in Saskatchewan, except under the Special ARDA program for natives.

ASSESSMENT

There is some question about the need for this program as it is strongly overlapped by IRDP-Innovation, IRAP, WTIDP, PILP, the biotechnology programs of Agriculture and Forestry, parts of the space program and a tax system already generous to research-oriented enterprises. To the degree that the sub-agreement becomes a vehicle for coordinating federal and provincial assistance it may well be worthwhile, but the case for any substantial top-up funding has not been made.

As this sub-agreement, signed last March, runs to March 31, 1989 there would appear to be little flexibility to reduce expenditures. Instead its management committee might be tasked with specifying an investment plan, with ROI targets, for the total funding available through the sub-agreement and existing A-bases considered together.

CANADA MANITOBA SUBSIDIARY AGREEMENT ON COMMUNICATIONS AND CULTURAL ENTERPRISES

OBJECTIVE

To complement Manitoba's economic development strategy through increased emphasis on the growth and enhancement of communication and cultural enterprises.

AUTHORITY

Subsidiary Agreement, under the Canada-Manitoba ERDA of January 4, 1984, between Minister of Communications and Provincial Minister of Culture, Heritage and Recreation.

DESCRIPTION

This jointly funded agreement, specifically tailored for Winnipeg, includes support for a wide spectrum of communication and cultural activities. It can best be described by including a summary of estimated costs to be shared over the life of the agreement (see expenditures below).

BENEFICIARIES

A broad spectrum of people involved in the communications and cultural fields.

EXPENDITURES (millions of current dollars)

In the early stages of development, the focus is on planning and research.

1984-85:	Nil
1985-86:	2.2
1986-87:	5.0
1987-88:	3.8
1988-89:	2.0
	13.0

The following activities will receive support under this agreement:

	Federal Share	Provincial Share	Total 5 years
Section A: Communications/Information Technologies			
Technology Applications Projects	6.0	*	6.0
Sector B: Cultural Enterprises Infrastructure Development			
Advisory Committee on Film, Video and Audio etc.	0.2	0.2	0.4
Film, Video and Audio Production Capability	3.9	0.6	4.5
Skills Development Facilities/Activities	2.1	0.3	2.4
Ethnocultural Communications Centre	0.2	0.2	0.5
Sector C: Cultural Enterprises Program Development			
Cultural Enterprises	**	6.1	6.1
Section D: Management, Public Information, Evaluation			
Management	0.4	0.4	0.8
Public information	0.1	0.1	0.2
Evaluation	0.1	0.1	0.2
	13.0	8.0	21.0

* Manitoba to co-ordinate these measures with their own program.
** Producers have access to assistance from Téléfilm Canada.

OBSERVATIONS

It is interesting to note that while this is a joint undertaking, two of the four sectors (A and C) are unilateral commitments with one party agreeing to sizeable expenditures while the other party continues its own related programs.

The wisdom of creating a large basket that includes such diverse activities, has to be questioned. This diversity could make effective monitoring very difficult.

ASSESSMENT

It is much too early to attempt an in-depth assessment. Winnipeg is the centre for communications and cultural enterprises in the mid-west and a logical place to undertake a venture of this type. Seed money placed advantageously could contribute to the start-up and expansion of industries in these fields.

Close monitoring will be required to ensure that funds are well used.

OPTIONS

There is a firm commitment by both parties to make the project succeed. There will be an annual review which will provide an opportunity to insist that the estimated budget figures in the long range spending forecasts be converted to firm dollar projects only when the proposed spending is in keeping with the original objectives of the agreement.

CANADA-MANITOBA URBAN BUS SUB-AGREEMENT

OBJECTIVE

To establish Winnipeg, Manitoba as a Canadian centre of expertise for the technological development and manufacture of advanced urban buses and related products.

AUTHORITY

DRIE Act; Appropriation Act.

DESCRIPTION

There are four programs within this sub-agreement, signed in June, 1984.

Research and Development ($3.5 million)

The objective of this program is to pursue research and development of selected technologies identified as strategic to the development of an advanced urban bus industry in Manitoba. Five technological areas were identified as offering potential. They are Modular Body Design, Composite Body Design, Off-Board Diagnostic Systems, Transit Vehicle Information systems and Hydraulic Energy Storage.

Prototype Development ($8.5 million)

The objective of this program is to support the design, development and construction of prototypes which contribute to urban bus technologies. The Prototype Development program will be tailored to the specific needs of each project and may include the fabrication of initial prototypes, testing, evaluation, redesign and other activities as deemed appropriate. For activities under this program, the participation of industry and other interested parties will be sought.

Production Design and Demonstration ($11.7 million)

The objective of this program is to support the design, development and demonstration of pre-production and production models of advanced urban bus technology. The Production Design and Demonstration program will be tailored to the specific needs of each project and may include product design (pre-production and final), design of

production tooling, design of production facility, demonstration and other activities as deemed appropriate. For activities under this program, the participation of industry and other interested parties will be pursued.

Management, Communication and Evaluation ($1.3 million)

The objective of this program is to provide the day-to-day administration and ongoing technical management expertise for the implementation of Programs A, B and C and to provide for public information and evaluation activities.

BENEFICIARIES

The existing manufacturers of urban buses in Winnipeg, their employees and the local and provincial economies.

EXPENDITURES (millions of current dollars)

The total amount of the agreement is $50 million, of which $25.0 million will be paid by the federal government.

84-84	85-86	86-87	87-88	88-89	Total
0.1	2.3	3.0	4.0	15.6	25.0

OBSERVATIONS

Winnipeg Urban Bus Industrial Base

Motor Coach Industries Ltd. (MCI) a wholly-owned subsidiary of Greyhound Ltd., has been a long-standing Winnipeg-based manufacturer of inter-city bus coaches.

MCI enjoys a share of Greyhound's captive North American coach market. This circumstance has enabled MCI Winnipeg, and its affiliated plants in New Mexico and North Dakota, to remain viable in a fiercely competitive North American and international market. (MCI's Manitoba plant produces inter-city coaches and parts for a full range of Greyhound coaches and custom tour coaches.)

Markets and Competitors:

General Motors (GMC) represents the largest manufacturer of buses in North America. GM Canada Ltd. produces buses and related components in both Ontario and Quebec. Internationally, GMC Ltd. competes with quality products produced in Germany and Japan as well as other nations.

Due to tight markets and over-capacity, all major world manufacturers of buses and related components are struggling. Sales volumes of bus companies are low, competition is stiff and profit margins are narrow.

R&D Efforts

All major international bus manufacturers are currently engaged in R&D efforts similar to those targetted under the Urban Bus Sub-Agreement.

A consultants' study, commissioned in advance of the Urban Bus Sub-Agreement, provided solid analysis and identification of relevant urban bus technological R&D requirements and long-range world demand profiles for buses and related components. Unfortunately, the study failed to translate this information into realistic prospects for Canadian penetration and capture of these markets. In particular, the potential for Canada-based sales to the U.S. market must be viewed in light of U.S. and State 'buy-American' policies.

Canadian R&D efforts contemplated under this sub-agreement are not presently linked to solid market segmentation and penetration strategies and plans.

ASSESSMENT

Considerable disagreement currently exists between federal and provincial committee members concerning the thrusts of project to undertaken under the Urban Bus sub-agreement. Meetings have been few; the most recent was in August, 1984. The consensus among federal representatives is that the sub-agreement was signed prematurely and without the benefit of sufficient program definition and project planning.

Federal action vis-à-vis the continuance of this sub-agreement should be attendant upon review of a forthcoming MCI proposal.

Given the significant level of R&D effort by major international bus manufacturers, the weak markets projected for buses the struggle for survival by major bus producers and the limited window into U.S. markets available to Winnipeg bus manufacturers, the Urban Bus Sub-Agreement programs and projects should be carefully scrutinized to determine whether the agreement should continue. Project review and approval should be tied to cost-shared arrangements with manufacturers. In the event that such projects cannot be generated within the next year, the study team is of the view that the sub-agreement should be terminated.

CANADA-MANITOBA SUB-AGREEMENT ON CHURCHILL

OBJECTIVE

To develop Churchill as a major Canadian port and a northern re-supply centre.

AUTHORITY

The Department of Regional Industrial Expansion Act, Appropriation Act.

DESCRIPTION

There are five major components under the federal-provincial subsidiary agreement for the Port of Churchill:

PROGRAM A — Rolling Stock ($38.7 million) -- CN Rail will rehabilitate up to 1,000 aging box cars for the Churchill line during the next two years, design and test new light-weight hopper grain cars, and carry out experiments and tests on rail lines on permafrost.

PROGRAM B — Port of Churchill ($14.7 million) -- Grain elevator health and safety improvements, port dredging and construction in Manitoba of a 2600hp tugboat during the next two years.

PROGRAM C — Churchill Airport ($2.8 million) -- Construction in 1987-88 of a new air terminal operations building to replace the present facility.

PROGRAM D — Power Transmission Line ($35.5 million) -- A Manitoba Hydro electricity transmission line will be extended north to provide service to Churchill by 1987. There is a contingent federal commitment of approximately $12.0 million, phased over ten unspecified years, for hydro-electricity purchases from Manitoba-Hydro when Program D is completed.

PROGRAM E — Churchill Potential Study ($550,000) -- A study of Churchill's development potential as an air and marine resupply centre as well as a resource and tourism centre.

BENEFICIARIES

The 1,000+ residents of Churchill would most directly benefit from the expenditures associated with this subsidiary agreement. There are negative impacts upon CN Rail and western grain handlers as set out in the Assessment section of this brief.

EXPENDITURES (millions of current dollars)

Program	Federal 84-85	85-86	86-87	87-88	88-89	Total	Prov. Total	CN Total	Total All Prts
A	6.0	6.0	3.0	2.0	2.0	19.0	19.0	0.7	38.7
B	1.2	9.7	3.9	-	-	14.8	-	-	14.8
C	-	-	-	2.8	-	2.8	-	-	2.8
D	-	-	-	-	-	-	35.6	-	35.6*
E	-	0.5	-	-	-	0.5	0.1	-	0.6
Adm.	-	0.1	0.1	0.1	-	0.3	0.4	-	0.7
TOTAL	7.2	16.3	7.0	4.9	2.0	37.4	55.1	0.7	93.2

OBSERVATIONS

The study team is of the view that Canada's grain exporting requirements are more than adequately served by port facilities in British Columbia and Thunder Bay, Ontario. Churchill represents less than 3 per cent of total Canadian shipment capacity.

Client nations purchasing Canadian grain determine the port from which the grain is to be shipped. Due to geographical considerations, only Russia and Poland wish to use Churchill.

Ice formations limit Churchill's season to 14 weeks and make it necessary to use ice-reinforced ocean freighters. Furthermore, permafrost conditions limit the use of efficient grain-carrying hopper cars to the peak 14 week summer period. Diversion of the hopper cars to serve the low volume branch-line to Churchill is not efficient from the overall Canadian grain transportation perspective.

Because of the permafrost problem, it is necessary to refurbish boxcars to service Churchill where the more efficient hopper cars are unable to operate. Refurbishing old boxcars for Churchill's needs is uneconomical from CN and Transport Canada's viewpoint, especially since Churchill is essentially surplus to Canadian grain shipment requirements.

Approximately 100 jobs are related to the Northern re-supply activity at Churchill.

ASSESSMENT

Churchill's main economic base is its grain port. Northern re-supply represents the other economic base with development potential for this small community. Mineral developments in the NWT, northern Manitoba, Hudson Bay and high arctic regions present potential future economic development possibilities for Churchill's re-supply activities.

The economic viability of Churchill as a grain port centres around two related sets of issues -- rail and port issues.

Rail Issues: The 820 kilometres of track between The Pas and Churchill pass over 245 identified sinkhole locations, which erupt each spring due to permafrost. Annual roadbed rebuilding is required.

Experiments using cryo-anchors to lower the temperature of the railway sub-grade and maintain it in a frozen state have shown potential for controlling the permafrost problem. However, use of such techniques to stabilize the rail bed at known sinkhole locations would required a capital investment of at least $15 million. No maintenance estimates are available.

Grain hopper cars are prone to derailment on the Churchill line because of high centre of gravity, rigid car design, and poor roadbed conditions. A light hopper car design might resolve the derailment problem and provide replacements for the fleet of aging boxcars used to service Churchill and other light capacity prairie branch lines. However, the capital cost and operational problems inherent in use of different size cars must be considered against benefits to be realized.

Grain shipments through Churchill have resulted in net grain transportation system penalties because of peak season equipment displacements, and slower turnaround times for equipment servicing Churchill than Thunder Bay.

Port Issues: The major advantages of the Port of Churchill are its shorter distances from northern European markets and lower freight rates from certain prairie production areas.

The short summer shipping season, which coincides with the Northern European harvest season, is a major disadvantage for the part of Churchill. Customer countries are reluctant to import grain when their own supplies are peaking, and there is a heavy load on their own grain handling and transport facilities.

Churchill will be further disadvantaged if the current trend to larger vessels carrying a variety of grains and oilseeds, not all of which are available through Churchill, continues. Churchill operates most efficiently when throughput is confined to one or two types of grains.

Port limitations and lack of alternate nearby ports reduce the number of ship owners willing to use Churchill. Dredging is required to eliminate tidal restrictions on loading times. Significant marine insurance premiums must be paid by shippers entering Hudson's Bay after late October.

Attempts by Canada to increase shipment volumes through Churchill would be met by heavy downward pressure on prices negotiated with foreign purchasers. Variability in the quality and quantity of grain in the Churchill hinterland also complicates marketing of grain through the port.

Grain is the principal commodity shipped through Churchill. Potash, coal and sulphur from the West are presently marketed into the U.S.A. and Pacific rim countries. There are few incoming shipments at Churchill.

OPTIONS

It is the view of the study team that the scope and financial commitment to the Churchill development subsidiary agreement could be limited to Programs C - Churchill Airport, and Program E - Churchill Potential Study. These

would support the current northern re-supply economic base of Churchill. The remaining resources could be re-allocated to more economically viable federal-provincial ventures in Manitoba.

Given the questionable economic prospects for Churchill as a grain export facility, and the economic and physical constraints facing rail transport to Churchill, the study team believes that the Churchill development subsidiary agreement should be terminated, and its financial resources re-allocated to more economically viable federal-provincial ventures in Manitoba.

GDA SUB-AGREEMENTS ON PULP AND PAPER INDUSTRY MODERNIZATION

OBJECTIVE

To stimulate private sector investment in the pulp and paper sector of the Canadian forest products industry, which will increase the sector's international competitiveness through investment in plant modernization and cost-reduction measures.

AUTHORITY

The Department of Regional Industrial Expansion: Appropriation Act.

DESCRIPTION

In 1979, Cabinet adopted a national strategy for the development of the Canadian forest products industry. As part of this strategy, incentive funds were to be provided to encourage private sector investment in plant modernization and cost reduction measures in the pulp and paper sector of the industry. The incentive funds were to be provided through cost-shared federal-provincial GDA subsidiary agreements. With the expiry of the GDA instrument in 1984, new agreements have been, or are being, established with ERDA subsidiary agreements.

The pulp and paper industry modernization program is focused in central and eastern provinces due to the relative age and competitive posture of their mills. Western forest products companies' needs are being addressed through federal-provincial agreements tailored to their differing needs. The program provides for federal-provincial grants of up to 25 per cent of the approved capital costs.

BENEFICIARIES

Direct beneficiaries are the Canadian pulp and paper producers receiving assistance under these agreements, their employees and the local, regional and provincial economies these companies impact.

EXPENDITURES

Pulp and Paper Modernization Agreement

	Nfld	N.S.	N.B. P&P*	N.B. CB*	Que.	Ont.	TOTAL
Term	1-6-87	31-3-84	31-3-84	31-3-89	31-3-84	31-3-84	
DRIE Commitment	34.0	17.0	43.0	19.6	135.0	62.7	311.3
Current Exp. 31/3/84	--	7.7	28.9	11.0	64.1	53.0	162.7
O/S Commitment 31/3/84	34.0	9.3	14.1	8.6	70.9	9.7	148.6
84-85	2.1	4.5	4.9	0.5	19.6	--	
85-86	10.3	2.8	9.2	1.5	24.0	4.5	
86-87	9.7	--	--	3.5	18.0	9.3	
87-88	3.6	--	--	2.3	9.3		
Future	8.3	--	--	--	--		
Expected Lapse	--	2.0	--	0.8	--	5.2	

* P&P - Pulp & Paper
CB - Consolidated Bathurst

OBSERVATIONS

The 1979 national strategy for the forest products industry development was predicated upon analysis of problems facing the industry. In particular, analysis of Canadian versus U.S. pulp and paper industry return on capital investment indicated that during the period 1965 to 1978, the American Return on Investment (ROI) averaged 11.1 per cent while the Canadian ROI lagged at 8.3 per cent. In addition, the Canadian industry was at a labour rate and fibre utilization cost disadvantage. The program of federal-provincial investment assistance/ incentive was intended to provide sufficient financial leverage to offset the Canadian return on capital investment disadvantage. Capital investment stimulated would reduce costs through modernization, increase profitability and hence improve return on capital.

The industry 'take-up' of this incentive program has been broad-based and viewed as a significant factor in corporate plant modernization capital investment decisions. Leverage afforded by these sub-agreements was viewed as critical to domestic versus foreign investment decisions.

Federal-provincial financial assistance under these agreements is being matched by over $3 billion in private sector investment.

The plant modernization and cost-reduction measures are expected to improve the industry's international competitiveness for the next ten years.

The B.C. pulp and paper mills were unable to participate due to the province's hesitancy to negotiate an agreement with the former federal government. Similarly, Newfoundland delayed negotiations of federal-provincial agreements, including a pulp and paper sub-agreement, due to difficulties encountered in offshore resource negotiations.

A joint DRIE/FIAC (Forest Industries Advisory Committee) study is underway to examine the relative improvements in the Canadian pulp and paper industry's cost-competitiveness vis-à-vis U.S. competitors as a result of capital investments stimulated by these sub-agreements.

ASSESSMENT

The ROI performance of the Canadian forest products industry was adversely affected in the late 1960s and in the 1970s by a series of large-scale capital project failures. These projects used capital generated by the various product lines, including pulp and paper, of large Canadian forest products companies. Lack of return on the investments limited the amount of working capital available for ongoing pulp and paper modernization.

It is questionable whether an industry-wide rather than a company specific investment assistance and incentive program was appropriate. Not all Canadian pulp and paper producers required, nor favoured, a general assistance approach. In several cases, take-up of ERDA funds simply accelerated planned modernization investments. In fact, the Canadian Pulp and Paper Association, CPPA, favoured in 1979 and continues to favour today, adoption of enhanced tax incentives rather than ERDA assistance/incentive agreements.

The apparent leverage of the agreements in stimulating private-sector modernization investment in the pulp and paper sector cannot be attributed solely to them. As suggested above, the private investments might have been made anyway. Nonetheless, the investment in modernization of the pulp and paper industry is well underway.

An assessment of capital investment requirements necessary to sustain and advance the Canadian pulp and paper industry's international competitiveness was completed in March 1984 by DRIE. The study indicates that approximately $6 billion in capital investment will be required over the next five to 15 years. The impact on profits, and hence return on capital investment, of these recent pulp and paper modernization initiatives could significantly influence investment decisions associated with the $6 billion referenced above.

Prior to initiating further industry-wide ERDA sub-agreement incentive programs, a more rigorous examination of financial need on a region and company/mill basis should be undertaken. Modernization assistance may be more economically and efficiently delivered through a direct program such as IRDP utilizing selective project approval criteria. A direct program approach using DRIE resource branch expertise could improve program delivery. As a minimum, incorporation into sub-agreements of a DRIE line branch role in ERDA program and project review and approval should be considered.

Use of the ERDA instrument to stimulate private sector investment had the advantage over tax incentives of immediate access by both profitable and marginal producers as do direct programs such as IRDP. Further, the pooling of federal-provincial resources under an ERDA sub-agreement presents a distinct advantage over a unilateral direct federal program. However, company specific assistance strategies would rely little on these advantages.

Use of the ERDA approach to deliver the forest sector strategy, or elements thereof such as reforestation, appears to have been well received by both provincial governments and the industry sector. However, for reasons outlined above, it may prove more cost-effective to use direct programs, such as IRDP, for specific cases of proven corporate need while adopting ERDA sub-agreements to meet sector-wide needs such as reforestation.

Future use of ERDA sub-agreements in forestry sector development will require program and project review of complex international marketing and competition factors, as well as technological and sector trends and issues. Achievement of ERDA objectives could be enhanced through

increasing the role of DRIE resource sector branches in ERDA approvals, management and program/ project review processes. This requirement is more pressing in cases where ERDA subs involve industrial expertise not sufficiently resident in provincial ministries. Similarly, central review and screening of potentially conflicting programs between provinces could be aided by incorporating DRIE sector line branch roles and responsibilities into sector strategy related ERDAs.

CANADA-NEW BRUNSWICK SUB-AGREEMENT ON A SULPHATION ROAST LEACH PILOT PLANT

OBJECTIVE

To develop sulphation roast leach technology for improving the percentage of metal recovery from high-sulphide base metal ores, and test its technical and commercial viability.

AUTHORITY

The Department of Regional Industrial Expansion Act, Appropriation Act, General Development Agreement.

DESCRIPTION

A 10 ton per day plant will be built and operated in Chatham, New Brunswick, to assess the technical and economic viability of a full scale commercial facility.

BENEFICIARIES

The provincial government, mining companies, and ore processors.

EXPENDITURES (millions of current dollars)

	DRIE Term	o/s Commt	31-3-84	84-85	85-86	86-87	87-88
Sulphation Roast Leach	1-3-89	15.0	13.5	8.0	4.5	1.0	-

OBSERVATIONS

An earlier agreement provided for the study and development of new technologies to deal with the processing problems with New Brunsick mineral ores. This research identified sulphation roast leach technology as the most likely process to increase the economic viability of New Brunswick mining.

The private sector would not take on the risks associated with this unproven technology. Since both levels of government were aware of the potential positive impact of the technology on the provincial economy, they agreed to bear the full cost.

The Special Capital Recovery Projects program was the source of funds, and a GDA sub-agreement was put in place to structure the implementation process and finalize private sector involvement on technical matters. The plant is due to commence commercial production in May 1985.

ASSESSMENT

Implementation of the agreement is proceeding according to plan and testing will begin once commercial production has started. While time has passed since the technology was first developed, it remains unique and attractive for New Brunswick. Recently, it has also received significant international attention.

A rigorous evaluation will be required prior to any additional federal investment in this technology. Assuming positive test results, the private sector should be strongly encouraged to adopt the technology.

DRIE - ASSISTANCE TO MICHELIN TIRES (CANADA) LTD.

OBJECTIVE

To provide incentive to Michelin to establish a radial tire manufacturing facility at Waterville, Nova Scotia, to expend the steel tire cord manufacturing facility at Bridgewater, N.S. and to expend the rubber mix manufacturing facility at Granton, N.S.

AUTHORITY

General Development Subsidiary Agreement between DREE/DRIE and Nova Scotia Department of Development, 7th June 1980, and an Agreement between the Province of Nova Scotia and Michelin Tires (Canada) Ltd. May 27th, 1983.

DESCRIPTION

An industrial development incentive grant to encourage Michelin to expand their facilities and increase employment opportunities by some 1,850 jobs. Michelin is expected to invest about $600 million in the facilities.

BENEFICIARIES

Michelin and new employees in three locations along with the spin-off effects from the creation of 1,850 new jobs.

EXPENDITURE

Total federal expenditures are $42 million, to be paid out in phases as the $600 millon company development program proceeds. The province is contributing an additonal $14 million. While the agreement does not terminate until December 31, 1990, 80 per cent of the grant has already been paid out.

OBSERVATION

The new Waterville plant is operational as are the expanded facilities at the other two plants. Total employment numbers 5,000 and is climbing in spite of the fact the tire market has been easing off. Michelin is doing well in the North American market.

ASSESSMENT

The agreement appears to have been beneficial for all parties. A new industry has been established in the Annapolis Valley, creating a sizeable number of new jobs with the usual spin off effect. Michelin is one of the major employers in the Province of Nova Scotia.

OPTIONS

The project is in the final stages of completion and no options have been considered.

STRAIT OF CANSO AREA DEVELOPMENT

OBJECTIVE

To encourage industrial development in the Strait Area, with its deep water year round harbour and its proximity to land-based and offshore natural resources, in order to create employment and income opportunities for people in the area.

AUTHORITY

Five year DRIE Subsidiary Agreement which terminates on March 31, 1989.

DESCRIPTION

Assistance under the Agreement is available to provide for infrastructure at a site to be available for heavy industry and port-related activity. Funds may also be used for small scale industrial infrastructure elements to support future development opportunities in the area.

BENEFICIARIES

New and/or established local industries.

EXPENDITURES

Federal expenditures under the 70:30 Federal/Provincial cost sharing agreement are projected to be:

	(millions of current dollars)
Strait of Canso Industrial Development Authority	2.8
Small Project Assistance	2.8
Heavy Industry Location	14.0
Total	19.6

The proposed heavy industry location project at Bear Head is still in the study stage. Some activity has begun under the small project assistance element.

OBSERVATIONS

The shut-down of the Gulf Oil Refinery and the uncertainty surrounding the future of the heavy water plant operations accentuate the need to attract new industry to the area. The uncertainty of export demand and the fluctuations in foreign currency rates have dampened enthusiasm for establishing a new cement plant to serve offshore markets.

ASSESSMENT

The proximity of the Strait area to the planned Venture Gas Development justifies the existence of a small dedicated task force to ensure that viable businesses are attracted to the area, and the necessary infrastructure is in place.

The original Canada/Nova Scotia Strait of Canso Subsidiary Agreement which was signed in 1975 and expired in June 1984 provided basic infrastructure such as industrial water supply, highways and an airport as well as supporting the Strait of Canso Industrial Development Authority (SCIDA). In addition to its specific terms of reference, the new agreement allows SCIDA to more aggressively develop industry activities at the Strait and promote the underdeveloped port site for trade and trans-shipment opportunities.

OPTIONS

An agreement of this nature, which combines the expertise of the two levels of government, thus avoiding duplication, is desirable and no meaningful option has been considered.

CANADA-NOVA SCOTIA AND CANADA-NEWFOUNDLAND SUB-AGREEMENTS ON OCEAN INDUSTRIES

OBJECTIVE

To encourage the local growth of medium to high technology ocean manufacturing and service industries, to exploit the industrial R&D supply opportunities arising from offshore petroleum development, and to provide applied research and technology transfer to Nova Scotia and Newfoundland.

AUTHORITY

The Department of Regional Industrial Expansion Act; Economic Regional Development Agreement; Appropriation Act; General Development Agreement 1974.

DESCRIPTION

The subsidiary agreements in Nova Scotia and Newfoundland provide for the establishment of Ocean Industry Development Centres that will undertake the promotion and delivery of federal program support designed to assess, establish and assist entrepreneurs in the ocean industry sector. Various programs and methods of support specifically tailored to the ocean industry sector in each province are contained in these agreements for example:

Marketing/Product Enhancement;
Opportunity Identification/Project Assessment;
Innovation and Productivity Support; and
Applied Research Support.

BENEFICIARIES

Ocean industry entrepreneurs, energy companies, ocean industry sector manufacturers and service industries.

EXPENDITURES (millions of current dollars)

Nfld. Ocean
Industries

Term	DRIE Commit	O/S 31/1/84	84-85	85-86	86-87	87-88	Future
31.3.89	19.0	-	1.0	4.8	5.2	4.6	3.4

N.S. Ocean
Industries

Term	DRIE Commit	O/S 31/1/84	84-85	85-86	86-87	87-88	Future
24.7.86	23.0	19.1	2.8	4.2	3.7	1.7	6.8

OBSERVATIONS

The Nova Scotia Agreement was put in place in 1981. Progress has been made and the Ocean Industries Development Centre now sits in Halifax as a high profile federal entity that is developing into a centre of excellence. The Newfoundland Ocean Industry Development agreement was signed in August 1984 and the associated Ocean Industry Development Centre has recently opened.

The Nova Scotia Ocean Industries Development Centre was subject to a DRIE internal audit in the fall of 1983. The audit found the organization to be complying with the agreement, and the audit team judged the project to be proceeding very well.

National programs of direct financial assistance such as IRDP and PEMD are judged to be inadequate for ocean industry sector firms. In some cases, program eligibility criteria are the problem and, in other cases, the level of financial assistance offered per project is inadequate. Ocean industry programs under these sub-agreements are being used to complement other funding programs for ocean industry firms. As such the centres are performing a brokerage role -- getting clients together with funding agents.

A national ocean industry sector strategy is now being developed to assist with the definition of the sector, to document its evolution and to contemplate its future. This is being developed without DRIE Industry Sector Branch input as they have little or no expertise in this sector.

A consultant hired under the Nova Scotia agreement is actively marketing the Canadian ocean industry sector and its expertise.

The Newfoundland Offshore Development Accord has been recently signed. The administration of the Accord will be the responsibility of a federal-provincial commission dealing with all facets of the offshore development. The Commission, staffed with federal and provincial government officials, will seek a co-operative resolution to all offshore development problems.

In contrast with the philosophy of the Newfoundland Accord the Newfoundland Ocean Industry Agreement emphasizes direct delivery and the Ocean Industry Development Centre is exclusively a federal entity. The additional work inherent in the direct delivery of financial assistance under this agreement was not properly anticipated and it now takes up to four months for approval due to the lack of person years.

In both provinces very substantial development funds have been established to facilitate offshore-related economic development as a consequence of federal-provincial energy deals. These funds, totalling half a billion dollars, have a capacity to both overlap and swamp these and other sub-agreements. Especially in Newfoundland, the relation between these programs remains to be established.

ASSESSMENT

The drilling industry and its ancillaries was established in Western Canada without specific government stimulation. The Nova Scotia Ocean Industries Agreement has undoubtedly stimulated the development of these support services; however market demand would have eventually led their creation without government involvement. The situation is identical in Newfoundland, which puts the rationale for these agreements into question.

The practice of stacking sub-agreement financial assistance on top of direct financial programming assistance should be re-examined.

The maintenance of a marketing representative for a particular sector and province at federal expense appears to conflict with EAC's mandate.

OPTIONS

It is the view of the study team that a major effort should be made to delineate with the relevant province coordinated investment plans for all the funds available under ERDAs, federal A-bases, and the development funds established by the offshore energy agreements. These plans should establish target objectives on a project-by-project basis, with ROIs specified where appropriate and benefit:cost thresholds otherwise. Evaluations of results against targets should be presented to both governments annually. Vigilance will be required to avoid the attainment of economic benefits in the two provinces at the expense of other parts of Canada, and to guard against further erosion of the Canadian economic union.

GDA AND ERDA INDUSTRIAL DEVELOPMENT SUB-AGREEMENTS

OBJECTIVE

To promote the co-ordination of efforts of the Government of Canada and participating provinces to stimulate industrial development and to increase the number of productive jobs.

AUTHORITY

The Department of Regional Industrial Expansion Act, Economic and Regional Development Agreements, Appropriation Acts, and General Development Agreements

DESCRIPTION

In those provinces where an Economic and Regional Development Agreement was signed stating that industrial development was a priority, subsidiary Agreements on Industrial Development are now being negotiated. One is operative in Quebec. Each of these agreements contains a series of programs delivered directly, by either the federal or provincial government, or jointly, and covering various types of projects ranging from construction of industrial infrastructure to the provision of financial assistance for major industrial projects and to local entrepreneurs. Similar agreements from the GDA era are still winding down in four provinces.

BENEFICIARIES

Provincial governments, developers, businesses, entrepreneurs.

EXPENDITURES (millions of current dollars)

ERDA Agreement for

Que.Ind.InfraII

Term	DRIE Commit	O/S 31/3/84	84-85	85-86	86-87	87-88	Future
31-3-90	175.0	175.0	-	3.0	4.0	4.0	164.0

Total existing ERDA's

Term	DRIE Commit	O/S 31/3/84	84-85	85-86	86-87	87-88	Future
	175.0	175.0	-	3.0	4.0	4.0	164.0

GDA Sub-Agreements

NFLD.Ind. DevI

Term	DRIE Commit	O/S 31/3/84	84-85	85-86	86-87	87-88	Future
31-3-84	24.0	1.4	0.9	--	--	--	--

NFLD.Ind. DevII

Term	DRIE Commit	O/S 31/3/84	84-85	85-86	86-87	87-88	Future
31-3-88	17.9	17.6	2.9	9.3	4.9	0.8	--

Que.Ind. InfraI

Term	DRIE Commit	O/S 31/3/84	84-85	85-86	86-87	87-88	Future
31-3-84	82.6	22.2	11.9	10.3	--	--	--

Man.Ind.Dev.

Term	DRIE Commit	O/S 31/3/84	84-85	85-86	86-87	87-88	Future
31-3-84	26.4	5.9	1.8	--	--	--	--

B.C.Ind.Dev.

Term	DRIE Commit	O/S 31/3/84	84-85	85-86	86-87	87-88	Future
31-3-83	35.0	1.1	0.3	--	--	--	--
	185.9	48.2	17.8	19.6	4.9	0.8	

Total Ind.Dev.

Term	DRIE Commit	O/S 31/3/84	84-85	85-86	86-87	87-88	Future
	360.9	223.2	17.7	22.6	8.9	4.8	--

OBSERVATIONS

Industrial Development Agreements have been subject to vast variation over the twelve years of their existence. The principal focus of DREE industrial sub-agreements, including the Newfoundland Industrial Development Agreement (DRIE-986), was the provision of infrastructure. Infrastructure projects contained in those agreements covered such things as road and industrial park construction, industrial malls, provision of water and sewer services, and the reconstruction and redevelopment of urban sites.

Industrial Development in each province in Canada was a DREE priority and accordingly specific Industrial Development Agreements dealing with the province as a whole, or specific portions thereof were signed with all provinces except Prince Edward Island under the General Development Agreements. (P.E.I. was assisted under the Comprehensive Plan.)

The Quebec Industrial Infrastructure Agreement is the first industrial development agreement signed under the new ERDA process. This agreement, with a federal share of $175 million, will provide financial assistance on a 50:50 cost sharing basis for an industrial infrastructure program ($50 million), and major industrial projects ($300 million). No specific projects are listed in the agreement or related schedules. The rationale for the agreement rests in the establishment of a new joint delivery system. The province and the federal government will be equally involved in analyzing and making recommendations for financial assistance and generally the applicant will come in contact with only one party to the sub-agreement.

ASSESSMENT

The difference between the new agreement with Quebec and the older GDA series is that the ERDA agreement encompasses all main line federal (IRDP) activity and makes it subject to joint management. This may improve delivery, but at a cost in the coherence of national sectoral strategy. The question emerges for instance, whether or not the industry Sector Branches at DRIE headquarters should be downsized to fit.

CANADA/NEWFOUNDLAND SUBSIDIARY AGREEMENT
INDUSTRIAL DEVELOPMENT PHASE II

OBJECTIVE

To encourage the development of new industries by providing basic infrastructure at selected sites, with the goal of providing long term employment and income opportunities adjacent to the areas chosen.

AUTHORITY

The Canada/Newfoundland General Development Agreement of 1974, the Subsidiary Agreement 1983, amended 1984. The Agreement terminates on March 31, 1988.

DESCRIPTION

This Agreement relates specifically to infrastructure and/or buildings at five specific sites and includes provision for planning, design, project studies, promotion and operational support.

There are no provincial expenditures under the Agreement. The province arranges for title to the lands to be conveyed to the federal government during the period required to undertake the necessary work. Upon completion, title reverts to the province at no charge. Operation and maintenance is the responsibility of the Newfoundland and Labrador Development Corporation.

Four of the five projects have reached the stage where contracts have been awarded. In the case of the fifth, the Windsor Industrial Park, the documentation is nearing completion and tenders should be called within six weeks. It is expected the facilities will be ready for takeover by the province in early fall 1985.

BENEFICIARIES

Small industries and persons living in the general proximity who will have an opportunity for gainful employment not now available to them.

EXPENDITURES (millions of current dollars)

Port aux Basques Industrial Park	2.3
Port aux Basques Industrial Mall	1.8
Pasadena Industrial Mall	2.9
Windsor Industrial Park	2.2
Gander Industrial Park	3.9
Contingency	1.6
	14.7
Planning, design, project studies, promotion and operational support	3.1
	17.8

OBSERVATIONS

The concept has merit. The sites are well spread out and adjacent to existing communities having pools of people available to take advantage of employment opportunities associated with any new industry start ups. The major populated areas of the province will now be serviced by this type of facility and the need for any additional site development is not evident at this time.

Provision of facilities does not in itself ensure that the objective can be achieved. It is one thing to be located close to a natural resource that has the potential for early exploitation. It is something else to endeavour to attract new manufacturing or service operations to areas where the obvious advantages are pools of people, and an obvious desire to have new industry established to reduce high unemployment levels.

It is essential that the sites be well run and perceived as desirable places to establish new operations and/or relocate existing business. For this reason, the sites should be run by people with previous experience in the management of industrial parks and malls.

ASSESSMENT

Under the terms of the agreement joint responsibility ceases when the various sites are turned over to the Newfoundland and Labrador Development Corporation to manage. The success of the venture is dependent, however,

on attracting occupants and this is an area in which the joint expertise of the participants may not be sufficient to ensure the desired results are forthcoming.

In a province where there has been limited opportunity to develop entrepreneurial and managerial skills outside the major centres, failure rates for new ventures run high and venture capital is not readily available. Special emphasis is required to help nurture the development of new small business and the introduction of management training in greater depth than now exists should be considered. The re-introduction and sprucing up of a program along the lines of the former Newfoundland Institute Advanced Management Training Plan might be helpful.

OPTIONS

The study team sees no viable options to the present arrangement and while this project is not without risk, due to the limited opportunities for industrial development in remote areas, it is well under way and should be allowed to proceed.

CANADA-NEWFOUNDLAND RURAL DEVELOPMENT SUB-AGREEMENT

OBJECTIVE

To strengthen and revitalize the rural sector by providing leadership and planning capabilities, and to support rural enterprises so that they may expand and diversify.

AUTHORITY

The Department of Regional Industrial Expansion Act, Canada-Newfoundland Economic and Regional Development Agreement, and Appropriation Act

DESCRIPTION

The Province of Newfoundland has signed an ERDA that provides for the identification and implementation of measures for economic and regional development. An ERDA sub-agreement, Rural Development II, signed July 1984, addresses the above objective with the following programs:

Regional Development Associations;
Business and Economic Development Fund;
Craft Associations and Development; and
Newfoundland and Labrador Rural Development Council.

BENEFICIARIES

Provincial and rural associations, entrepreneurs, rural workers.

EXPENDITURES (millions of current dollars)

	Term	DRIE Commit.	o/s 31-3-84	84-85	85-86	86-87	87-88
ERDA Sub:							
Nfld Rural Dev II	31-3-88	9.1	9.1	1.2	2.4	2.4	3.0
GDA Subs:							
Nfld Rural Dev	30-9-83	15.1	14.8	0.3	-	-	-
Coastal Labrador	31-3-87	33.8	12.2	5.9	3.4	3.0	-
Total Rural Development		58.0	36.1	7.4	5.8	5.4	3.0

OBSERVATIONS

The GDA sub-agreements on rural development in Newfoundland were signed initially in 1974 and are now coming to conclusion. The Newfoundland ERDA provided for a sub-agreement on rural development, which was included in order to continue the types of projects initiated under earlier agreements. The rationale for the sub-agreement came from an evaluation of the GDA which found that the instrument and the programs contained therein had been effective, and that although significant development of rural resources had occurred, additional activity was warranted.

ASSESSMENT

The most effective programs under the GDA are continued in the ERDA sub-agreement, but they are now delivered directly. It is not possible to determine the costs or value gained from the direct delivery approach; however, under the GDA, programs were cost shared with Newfoundland on a 90:10 basis, whereas under the ERDA the ratio is 50:50 thereby potentially drawing more funds to rural development objectives.

DRIE has extensive experience in rural development initiatives with GDA sub-agreements having been put in place in New Brunswick, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia.

CANADA-NEWFOUNDLAND SUB-AGREEMENT ON THE BURIN PENINSULA

OBJECTIVE

To diversify the economic base of the Burin Peninsula and to create new employment opportunities in that region of Newfoundland.

AUTHORITY

The Department of Regional Industrial Expansion Act, Newfoundland Economic and Regional Development Agreement, and Appropriation Act.

DESCRIPTION

This agreement was a side-payment to Newfoundland in order to obtain its acquiescence in the fish plant rationalization scheme of 1984. The Burin Fund has three programs:

a. reactivation of a fluorspar mine;
b. construction of a dockside servicing facility for offshore oil rigs and; and
c. "regional development": anything else that might come along.

BENEFICIARIES

Area residents, entrepreneurs and oil field developers.

EXPENDITURES (millions of dollars)

	Term	DRIE Commit	O/S Commit 31-3-84	84-85	85-86	86-87	87-88
Burin	31-3-89	19.6	19.6	1.9	5.0	4.0	4.9

OBSERVATIONS

The sub-agreement provides for joint delivery of the programs and implementation has commenced. Contracts have been let for the fluorspar mine. Work on the oil rig servicing facility, which is across the bay from Marystown Shipyard, is proceeding.

The relation of this small program to the recently agreed $300 million development fund is as yet undefined.

ASSESSMENT

The study team considers the agreement justifiable in terms of the economic situation in the Burin Peninsula even though the agreement and programming may be at odds with IRDP in that certain large projects requiring Crown support that might be eligible under IRDP will be funded under the agreement. On the other hand projects that are too small for IRDP and are judged meritorious may receive Crown support under the sub-agreement. Sub-agreement managers appear to recognize their responsibility to coordinate the myriad overlapping programs of potential benefit here.

OVERVIEW
- SYSTEM MANAGEMENT PROBLEMS -
COST RECOVERY FOR GOVERNMENT SERVICES

The Business Team points out that the scope for privatizing some of the services presently delivered in the public sector is huge and that the government should place a high priority on obtaining total cost information on the services it presently provides as a first step toward deciding on the privatization of the service or the appropriate level of revenue generation if the service is to be provided by a cost recovery government organization.

Overview

One of the recurring problems faced by various study teams is the treatment of cost recovery for certain kinds of government services. There are several reasons to attempt to get some governmental organizations to recover more of their costs:

- to place more of the costs of the service on those users directly using the service, both for reasons of equity and to make the government organizations more responsive to the needs of users;

- to increase the operational efficiency of the government services;

- to provide indicators of the most effective allocation of government resources, much in the same way that profit centres in large corporations serve to improve allocative efficiency;

- to decrease government cash losses;

- to decrease unfair competition to private sector firms attempting to provide similar services.

Two basic approaches can be adopted when dealing with the problem of recovering some or all of the costs associated with services presently being provided by the government. One solution is to eliminate or privatize the government organization providing the service, hence allowing the service to be provided completely by the private sector. If it is decided to deliver the service through a government organization, then some degree of cost recoverymay be appropriate.

However, there are numerous problems in determining the extent of cost recovery to be expected from a government organization and the disposition of the revenues collected. Leaving aside legal or institutional constraints that limit the extent of cost recovery and the disposition of revenues collected, the main concerns that distinguish cost recovery or revenue-generating organizations in the public sector from private enterprises are:

- the non-financial objectives of the government;
- the avoidance of competition with the private sector in most situations; and
- the treatment of capital by a public sector organization.

This paper addresses the problem of cost recovery for government services by identifying the conditions under which full cost recovery for government services is desirable. In all other situations the extent of cost recovery must be decided on a case-by-case basis, and the factors influencing that decision are identified. In addition, guidelines are discussed for disbursing a portion of the revenues collected back to the revenue-generating organization as well as general guidelines for determining the appropriate cost base of the organization.

Full cost recovery for government services is not necessarily appropriate when businesses or individuals are legally or practically obliged to use the service. Examples of such services would be mandatory inspection, regulatory or administrative services. While in some cases it may be acceptable to have full cost recovery for mandatory services, care must be taken when loading onto firms costs over which they have no control when there is no check on the efficiency of the delivery of such services. This problem is exacerbated by the fact that inspection, grading, traffic control and similar government-imposed costs have been historically difficult to deliver efficiently and that the optimal level of such services is difficult even to define.

The extent to which it might not be desirable for a government agency to recover fully its costs depends on:

- the extent to which the users are legally or practically bound to use the service of the government organization. From the perspective of the agency, the mandatory nature of the service affects or determines the extent to which increased revenues or cost reductions can be associated with the performance of the employees of the organization. (The revenues from the collection of tolls is an example of revenues that are largely independent of the performance of the agency);

- the extent to which the service cannot be or is not provided in the private sector;

- the "externalities" associated with the use of the service provided by government; that is, the societal benefits that accrue to non-users of the service;

- the size of the organization and the value of the service provided to the users (for very small service organizations, the administrative expenses associated with cost recovery may be prohibitive although many small organizations with access to common services can operate quite efficiently);

- the extent to which the products of firms using the government service compete with foreign goods receiving subsidized foreign government services; an example of such services are the use of government-operated research or testing facilities for less than full cost recovery;

- the extent to which "retained earnings" do not contribute to the net revenues position of the CRGO in the longer term; and

- the inability of the direct users to pay for the service when there exists a government objective to support them; an example is advice by a CRGO to small business and new entrepreneurs.

Another problem associated with cost recovery is the disposition of revenues collected by the government organization. At present, revenues collected by organizations other than Crown Corporations are generally returned to the Consolidated Revenue Fund (CRF). This limits the motivation of the organization involved to maximize net revenues. When some degree of cost recovery,

based on the above factors, is appropriate for a government organization, it is recommended that some portion of the revenues generated be returned to it. Within limits and depending on the nature of the organization, it is suggested that the organization have the discretion either to invest the funds in capital needed for its operations or to disburse funds to employees in the form of performance pay. An example of performance pay being appropriate for employees is where government researchers contribute exceptionally well to the commercial successes of Canadian firms. However, guidelines for performance pay to employees would have to be developed with caution; it is most appropriate for agency services near the discretionary service end of the spectrum and where monetary incentives for contributions toward cost recovery would not be expected to distort the behaviour of the agency away from legitimate non-economic government objectives for the agency. Examples of "performance merits" distorting organizational behaviour inappropriately are merits for tax collectors and train inspectors. It is suggested that funds used by the organization to acquire capital be treated as similarly as possible to investments in the private sector; specifically:

- capital acquired should increase the imputed cost base of the organization, and the capital should be depreciated at rates corresponding to the economic life of the assets;

- if the organization chooses to divest itself of assets, the funds should go into a revolving fund for fixed capital; the agency should then acquire an automatic draw on the fixed capital revolving fund equal to the revenue from the divestiture; the fact that the cost base of the agency would be lowered by such divestitures would serve to mitigate the tendency for the agency to over-capitalize to maximize its entitlements from the fixed capital revolving fund;

- a separate revolving fund for working capital should be established distinct from the fixed capital one; many agencies, such as those providing managerial or administrative services, have working capital requirements greater than their fixed capital requirements, and they require flexibility with respect to their working capital.

Implementing the above guidelines on the treatment of capital by the agency will allow policy-makers to compare the economic performance of the agency with different types of capital requirements.

The cost base that is appropriate for the agency is the same as that of a private firm: total costs, including the imputed values of employee benefits and cost of capital. In many instances, estimates or allocations of costs would have to be made when the agency shares staff, administrative services or capital with other government organizations. Operationally, a guide for determining such allocation is provided by answering this question on a case-by-case basis: "Would a private sector firm providing this service have to pay for (whatever)?" There are a number of reasons for choosing total costs as the appropriate base. It is the only good way to standardize and compare the agency with respect to their economic performance to the direct users of the services. This allows the government to make rational judgements concerning the real cost of providing the services of the agency and, in some cases, the total net subsidies from the services of the agency to the direct users of the services. Finally, from the perspectives of public accountability and alternatives selection, it is better to view the financial performance of the agency in terms of their total cost bases.

Adopting the cost recovery approach suggested herein necessitates legislative or procedural changes in a number of areas. One of the implications of using total cost as the recoverable base for the agency is that the government will have to expand its current management and accounting information to estimate the value of total assets used by the agency. Another is that uniform procedures would have to be put in place governing the agency and any existing procedures that conflict with or inhibit cost recovery would have to modified; for example, person year restrictions are one major constraint to maximizing cost recovery. Finally, while Parliament should retain scrutiny over gross expenditures and methods of revenue collection by revenue dependent agencies, Vote-netting should be employed to a greater extent than it presently is as long as the revenues returned to the agency are used by it and not other organizations covered by the Vote.

Conclusion

Alternatives to cost recovery should be considered. For services that are mandatory, the government should fundamentally reconsider the range of services that are presently provided exclusively by the government. For example, marine insurance underwriters, who already inspect the safety of commercial vessels and classify ships with regard to insurance premiums, could be allowed to take over some of the ship safety functions presently handled by governmental inspectors. Another example would be to allow bonded associations or firms to develop standards or perform some types of inspections. Other possibilities would be to greatly open up private sector competition with Canada Post or to privatize some of Transport Canada's airports. In general, the government should consider allowing private sector firms, either as regulated monopolies or on a competitive basis, to provide services presently offered only by the government whenever firms are willing to provide the service for, say, one half or less of the total cost to the government of the service.

For services that are discretionary allowing the service to be provided competitively by the private sector should be regarded as a strong alternative.

For those services that remain in the public sector and are delivered through a government agency, procedures should be put in place to increase their flexibility in managing both their capital and labour and the relevant cost base. Guidelines are suggested herein for determining the extent of cost recovery to be expected, the treatment of revenues generated and the treatment of the fixed and working capital.

Automatic Matching Incentives for Research and Development

Background

At present, R&D activity in Canada is encouraged or supported by the federal government along a very broad spectrum, which includes:

- post-secondary education transfers to provinces part of which pay for pure research in universities, sometimes in conjunction with industry;
- NSERC and NRC grants specifically for university research;
- direct support of government labs doing pure and mission oriented research;
- services to companies to facilitate their R&D (e.g. NRC and DOC testing facilities, provision of expert staff for consultation);
- direct payments to companies to undertake contract research;
- direct grants to private firms covering a portion of various R&D costs (e.g. IRDP, DIPP);
- full expensing under the income tax of capital items purchased for "qualified" R&D (pilot plants?);
- partially refundable corporate income tax credits available to finance a set fraction of "qualified" R&D expenditures after they have been incurred; and
- tax credits to investors who put up money via private financial instruments to finance (ex ante) qualified R&D (Scientific Research Tax Credits or SRTCs).

The total cost of the direct cash and tax subsidies was apparently as high as $1.5 billion in 1984, largely due to over one billion dollars in tax expenditure programs. However, for planning purposes it may be better to assume average annual resources of about $500 million. The annual average cost of all R&D tax expenditures up to 1983 is just above $200 to $250 million; and $250 to 300 million is a rough estimate of the direct spending costs of the portions of DIPP, IRDP, IRAP and PILP, SDF, UPP and other programs that could be considered in the approach discussed below.

From a financial management perspective, it would not be unfair to say that these expenditures are out of control. Particularly with respect to the tax incentives, there does not appear to be any reliable information about revenue costs for the last several years, nor any reasonable forecasts for the future (e.g. to the nearest $100 million or within a 10 per cent error range).

From a policy perspective, it is hard to argue that there is any coherence to the plethora of subsidies. These vary from nil to 90 cents on the dollar or more -- depending on the size, geographic location, and tax status of the firm and its aggressiveness in seeking government support.

In recent policy discussions and briefs from the private sector on these direct cash or equivalent tax subsidies for industrial R&D, two main concerns or objectives appear to dominate: automaticity and refundability.

Two Basic Objectives

The business community in particular has expressed a general preference for incentives provided through the tax system. One key reason is that there is no complex or onerous application process; instead, benefits accrue automatically when an income tax return is filed to the extent that the prescribed activities -- in this case R&D expenditures -- have been undertaken (and the benefits are actually received to the extent the firm is in a taxable position or the incentive is refundable).

The advantages of such automaticity of benefits include:

> self-assessment by beneficiaries (folowed up by audits) and thus lower government administrative costs -- in effect a large portion of the administration of the benefit is privatized; and

a degree of prior certainty on the definition of "qualified" R&D for prospective beneficiaries, since the eligibility rules are spelled out in detail in advance, and are not subject to bureaucratic discretion (though there are often questions of legal interpretation). However, there is less certainty about the ultimate value of the benefit if the firm does not know what its tax position is going to be.

Another concern is to provide benefits to all firms undertaking activities for which the incentive is intended, irrespective of their tax or financial position. This had led recently to increasing use of refundability mechanisms in income tax incentives.

The point, simply put, is that tax incentives are generally of no value to firms that are not in a tax-paying position. Many profitable firms are non-taxable, as are many start-up firms, yet they may be interested in doing R&D. Tax write-offs or tax credits for R&D will be of no value to these firms unless they are in some way refundable. Refundability is thus essential if an incentive is not to be confined -- in part perhaps capriciously -- to those firms that happen not to have many other tax expenditures to draw upon in a given year. Of course, many firms are non-taxable simply because they are not making any real economic income, not because they are starting-up. Thus, one caveat about providing benefits to tax loss firms is that they might be "losers".

Refundability is one of the key advantages of direct granting programs. The grant is straight cash irrespective of the firm's tax or financial position. While tax incentives can and have been made (at least partially) refundable, this poses major risks of tax abuse and erosion of federal tax revenues, as the recent SRTC experience has shown. On the other hand, from the viewpoint of economic theory, refundability is important in order to avoid asymmetry in the incentives for risk-taking.

A New Approach

One option is to develop an incentive mechanism that combines the automatically advantages of tax incentives and the refundability characteristics of direct grants. Such a mechanism is the (fractional) Automatic Matching Incentive - AMI.

The AMI for R&D might work as follows:

a. legislate a definition of eligible R&D expenditures -- as a starting point it could be identical to the current income tax definition;

b. legislate a program that simply pays 20 cents (for example) to anyone who does one dollar's worth of eligible R&D;

c. any firm (or individual) then knows the rules of the game in advance;

d. the firm does some eligible R&D during its fiscal year;

e. after the end of the year, the firm submits a two line grant application as follows:

    1. XYZ Ltd. has incurred $X of eligible R&D expenses,

    2. The resulting AMI entitlement is a cheque for $0.2 X,

    with a financial statement attached -- exactly as with an income tax return (possibly the same financial statement);

f. the agency giving the grants simply sends the cheque and follows up on a sample basis with audits (possibly coordinated with Revenue Canada); and

g. the agency administering the AMI for R&D would have a negligible staff writing cheques, an audit staff with a sampling methodologist, and a small policy unit with two main functions:

    keeping abreast of technological and other trends relevant to maintaining the prescribed definition of R&D up-to-date, and

    monitoring expenditure trends to keep the total costs of the incentive within reference levels.

The AMI as just outlined is a "framework" policy -- it creates an environment where the rules of the game are clearly prescribed in law; the incentive is neutral across types of business organization and tax and financial status; and the incentive is generally immune from bureaucratic discretion and localized political pressures.

Where the AMI Fits In

The AMI just described could replace all existing tax incentives specifically directed toward R&D. This means that the investment tax credits would be abolished, and the partial refundability and flow-through mechanisms would become irrelevant. As well, capital items for R&D that can be expensed would have to be written off according to their prescribed (and still accelerated) CCA rates.

The AMI could also replace significant portions of many direct granting programs. At the very least, where a program funded more than 20 cents per dollar of R&D, the program could be cut by 20 cents on the assumption that the program would be stacked upon the 20 per cent AMI to which the firm would be entitled anyway.

In addition, it might be appropriate to cancel some of the remaining programs that would otherwise be stacked upon the AMI. Alternatively, they might be restructured to provide a stronger focus on "targetting" given the existence of a clear broad framework policy in the form of the AMI. Further work would be required to assess precisely which direct spending programs ought to be amended or folded into the AMI.

A Way to Think of the AMI

The AMI, as proposed above, can be thought of as deriving from the status quo in a few main steps:

a. require R&D capital expenditures to be written off under the CCA system rather than expensed;

b. change the current variety of investment tax credit rates for R&D (e.g. special rates for small firms and particular regions) to a single flat rate of 20 per cent, for example;

c. make this investment tax credit fully refundable;

d. move the administration of this refundable tax credit to a separate agency or group, either within or still closely associated with Revenue Canada (e.g. relying on the same personnel and returns filed);

e. change the accounting for the incentive to that for a direct expenditure program (i.e. a "blue book" program) rather than leaving it submerged in the tax system; and

f. fold in all or part of some existing direct spending programs.

The Level of the AMI

The 20 per cent rate proposed for the AMI is purely illustrative. It was intended to be roughly deficit neutral. Thus, the added costs of making the incentive fully refundable would be offset by savings on the expensing of capital items ($60 million in 1982), investment tax credits at rates greater than 20 per cent, and cuts in direct spending programs.

Further work would be required to determine what the deficit-neutral AMI structure would be. The AMI's cost would depend on the percentage rate for the AMI, the scope for the definition of eligible R&D, and the take-up rate. Offsetting savings would depend on the precise parts of various direct spending programs folded into the AMI, and the value of the R&D tax incentives that would be removed.

Depending on the government's desired fiscal stance, and broader decisions on R&D policy, the AMI could also be structured to provide net savings or provide greater benefits.

Framework versus Targetted R&D Support

With an AMI for R&D in place, the policy choice between "framework" support and other uses for scarce government resources could be better considered. In particular, the total dollar costs of the framework policy would be much better known. As well, the AMI agency would have to compete generally for funds against other programs in the Economic Development spending envelope, and more specifically against other programs in the R&D/Innovation sector.

As set out above, the only targetting in the AMI is the definition of eligible R&D. Of course, the incentive could be "configured" or targetted to particular regions, sizes of firms, etc. Doing so, however, would add complexity and it is not clear that a robust economic rationale could always be provided as a basis for granting larger incentives for R&D activity produced one way rather than another.

The AMI does not make any pretense of funding only incremental R&D, nor only that portion of R&D that is inappropriable -- the part of an R&D effort whose benefit accrues to society in general and cannot be captured by an individual private firm. It is much more like the investment tax credit in this regard. Thus, the AMI proposal above is premised on roughly retaining the status quo level of support for framework R&D incentives. It is beyond the scope of this Note to question this basic premise, even though such questioning may be warranted.

Gainers and Losers

Large taxable firms would lose the 100 per cent write-off of capital equipment, and possibly some direct grant money. Large non-taxable firms would gain from the refundability. Small taxable firms would lose the 100 per cent write-off and the higher than 20 per cent investment tax credit they currently enjoy. Small non-taxable firms would gain from the full rather than partial refundability. Firms undertaking R&D in certain regions (e.g. Gaspé) would lose the higher than 20 per cent investment tax credit rate.

Certainty and the Definition of "Qualified" R&D

The certainty of benefits should be no less than under the current income tax provisions. It should be understood that just because firms say they prefer income tax provisions because they are automatic, this does not mean they are certain. There are often disputes between Revenue Canada and taxpayers over interpretations of the law, including the definition of eligible R&D.

In today's rapidly changing environment, a separate group or agency running an AMI for R&D could be more flexible in adjusting the definition of R&D than under the current Finance-Revenue Canada division of administrative and policy concerns, particularly since these groups have many other concerns. The AMI agency would have a clear dollar cost constraint. This would impose

sufficient discipline so that the agency could be given considerable discretion in amending the definition of qualified R&D from one year to the next. For example, the agency could broaden the definition more towards "development" provided they lowered the overall 20 per cent rate or instituted other changes to keep expected costs within reference levels. (There would have to be some limitations so that the definition retained a degree of stability from year to year.)

Beneficiaries would also be better served by having the administration of the incentive and the policy responsibility for the definition of qualified R&D located in the same agency. The administration would not be linked to the broader Revenue Canada concern of maintaining corporate income tax revenues.

"Up Front" Cash

The AMI provides ex post benefits. While the incentive is known and understood in advance of undertaking the R&D, the cash only arrives after the fact. Many existing grant programs and the SRTC (to some extent) provide up front cash. With the AMI there is a strong general case for providing no up front government assistance. If the proposed R&D endeavor is sufficiently worthy, private financial markets should be willing to advance funds taking into account the expected value of the AMI.

There may be exceptional circumstances calling for up front cash assistance for R&D even with the AMI in place, but this kind of program should be much less necessary and should not be considered part of the "framework" policy.

Accountability

Under an AMI, the government could be clearly accountable for and better control the costs of the R&D incentive, albeit with a one or two year lag. At the moment, Finance does not know the actual costs of R&D tax incentives in 1981, let alone the year just past. The tax expenditures have never been subject to scrutiny by the Public Accounts Committee of the House of Commons.

Perhaps one of the reasons some groups express preference for tax incentives over direct grants is precisely because these incentive benefits are not subjected

to such public scrutiny and accountability, and thus tend to be immune from evaluation and periodic rounds of budget cutting. However, this is clearly inconsistent with a concern about the deficit.

Conclusion

The AMI is entirely consistent with the keywords of the Ministerial Task Force on Program Review:

it is simple and easy to understand;

as a result, the program is more accessible;

because of its simplicity, it can be delivered more efficiently;

the purpose is clearly defined;

because it is a direct expenditure program, it will enable the government to exercise and the public to see that the program is under competent control with credible management

by consolidating a range of government programs it reduces overlap and duplication; and

with minimal scope for bureaucratic discretion, it enables decision-making to be decentralized to those actually taking the R&D initiatives.